*CHAPTER 9

URBAN OPERATIONS

"The rapid growth of the number and size of urban centers, especially in regions of political instability, increases the likelihood that US forces will be called upon to conduct MOUT."

Defense Science Board, October 1996

By the year 2010, seventy-five percent of the world's population could live in urban areas. Thus, urban areas comprise the most likely future battlefield, so US forces will most likely fight in urban areas.

This chapter discusses general planning considerations for the reconnaissance platoon and squad. It also discusses tactics, techniques, and procedures for reconnaissance operations in urban areas.

Urban operations (UO) are not new to the US Army. Throughout history, the Infantry soldier has fought many enemies on urban terrain. What is new? Urban areas and populations grew so much in the late 20th Century that they figure more importantly in military operations now than ever before. Worldwide shifts from rural to urban societies and the requirement to switch back and forth between combat operations versus stability or support operations have affected US Army doctrine.

Section I. CONSIDERATIONS

The battalion headquarters reconnaissance platoon will conduct assigned missions as part of a battalion TF. This section outlines considerations to help the reconnaissance platoon reconnoiter and provide security for the battalion in urban operations. It describes characteristics unique to the urban environment and to a threat operating in an urban environment. Finally, it discusses factors the platoon leader must consider while preparing for and planning the operation.

9-1. URBAN IPB

The reconnaissance platoon reconnoiters in urban environments to obtain critical information for the battalion TF. The platoon must clearly understand its IR and how they relate to higher headquarters' intent. The platoon might have to conduct a terrain-oriented reconnaissance, which would focus on the multidimensional aspect of the urban area. The platoon might instead orient on the enemy. In that case, the platoon would isolate an urban area in a high-threat environment. Either way, it should give the TF commander enough information to understand the urban environment that he faces.

a. Entering or operating in an urban environment poses a significant threat to reconnaissance soldiers unless the platoon prepares and plans properly. The platoon thoroughly analyzes the urban environment and the threat before starting a reconnaissance operation. During the preparation phase, the reconnaissance platoon determines its reconnaissance objectives and conducts an urban IPB (see FM 34-130). It

collects and analyzes existing map and aerial images (IMINT) as well as all HUMINT. Then it develops the situation.

b. An urban IPB is crucial to planning an urban operation. Reconnaissance units must identify all relevant forces, the strengths and critical vulnerabilities of those forces, and the critical, precise locations in the urban area that could, if controlled, provide a tactical advantage. The IPB effort must address the impact of noncombatants, whose presence in the urban area could be substantial and dynamic. Determining the ethnic and religious composition of the population and, if possible, its intent (for example, to flee or to remain) could prove crucial. In urban combat operations, the reconnaissance platoon must focus on achieving informational and situational understanding for the TF. Some of the tasks it might perform include—

- Determining enemy locations and current activity.
- Determining trafficability of routes.
- Identifying adjacent and alternate routes.
- Identifying subterranean openings and their systems.
- Establishing and maintaining communications.

9-2. CHARACTERISTICS OF THE URBAN ENVIRONMENT

Each operational environment has distinct characteristics, and urban areas are the most complex. Two main factors complicate urban operations: The first is the fabricated terrain and its supporting infrastructure; the second is the density of noncombatants close to combat forces. The latter is more important due to the human dimension, but that same dimension also makes it more confusing. HUMINT reveals what the local populace thinks about the friendly and threat forces. This information helps frame the TF reconnaissance effort.

a. **Categories of Urban Areas**. An urban area concentrates structures, facilities, and people, which together form the economic and cultural focus of the area. Each of the five categories of urban areas affects operations. With its associated urban sprawl, a city, metropolis, or megalopolis can cover hundreds of square kilometers. In areas this large, brigades and below normally operate as part of a larger force. However, extensive combat in these large urban areas involves units of division level and above.

(1) ***Village***. A village has 3,000 inhabitants or less. A brigade AO (area of operations) can include many villages. As a normal part of brigade operations, the brigade units bypass, move through, defend from, and attack objectives within villages.

(2) ***Town***. A town has 3,000 to 100,000 inhabitants, but is not part of a major urban complex. Operations in such areas normally involve brigades or divisions. As part of division operations, brigades bypass, move through, defend in, or attack enemy forces within towns.

(3) ***City***. A city has 100,000 to 1 million inhabitants.

(4) ***Metropolis***. A metropolis has between 1 and 10 million inhabitants.

(5) ***Megalopolis***. A megalopolis has over 10 million inhabitants.

b. **Urban Zones**. The S2 will subdivide the AO and the area of interest (AI) into appropriate types of "zones" (see FM 34-130).

(1) ***City Core***. The city core is its downtown or central business district—the heart of the city. This area is relatively small and compact. It contains a large percentage of the city's shops, offices, and public institutions as well as its highest density of multistory

buildings and subterranean areas. Today, typical city cores consist of buildings that vary greatly in height. Also, most cities have developed their core zones more than their core periphery zones. Thus, city cores usually differ greatly from their peripheries. The two most common construction patterns used in city core zones are:

(a) *Dense Random Construction*. In this typical, old, inner-city pattern, many narrow and winding streets radiate at random from a central area. Buildings stand close together and are often close to the road.

(b) *Close Orderly Block Construction*. Wider streets form mostly rectangular patterns. Buildings often form a continuous front along the blocks. Inner-block courtyards are common.

(2) ***Core Periphery***. The core periphery is located at the edges of the city core. Its streets vary from 12 to 20 meters wide and have continuous fronts of brick or concrete buildings. In small towns, the buildings range between two and three stories high. In large cities, they range from five to ten stories. The two most common construction patterns used in core periphery zones are the same as those described for the city core: dense random construction and close orderly block construction.

(3) ***Dispersed Residential Area***. In Europe, this type area normally occurs next to *close-orderly block areas*. It has row houses or single-family dwellings with yards, gardens, trees, and fences. Streets normally form rectangular or curving patterns.

(4) ***High-Rise Area***. Typical of modern construction in larger cities and towns, this type area consists of multistoried apartments, separated open areas, and single-story buildings. Wide streets form rectangular patterns. These areas are often located right next to industrial or transportation areas. Sometimes they intersperse with close-orderly block areas.

(5) ***Industrial-Transportation Area***. These areas generally occur along major rail and highway routes in urban complexes. Some older complexes exist within dense randomly constructed or close-orderly block areas. New construction normally consists of low, flat-roofed factory and warehouse buildings. Throughout the Orient, adjacent high-rise areas provide worker housing. The platoon must identify all transportation facilities in these areas, because all of them, especially rail yards, pose significant obstacles to military movement.

(6) ***Permanent or Fixed Fortifications***. These include any of several different types of fortifications, including such isolated forts as the Hue Citadel (Viet Nam) and the German fortifications around Metz. They can also include fortified lines such as the Siegfried and Maginot Lines. Though most are in Western Europe, many are also in the Balkans, the Middle East, Asia, Africa, and South America. Most such fortifications in the United States were built for coastal defense. Permanent fortifications are made of earth, wood, rock, brick, concrete, steel-reinforced concrete, or any combination of these. Some of the latest variants are built underground using heavy tank or warship armor; their armament includes major caliber and other weapons; they have internal communications, service facilities, and NBC overpressure systems.

(7) ***Shantytowns***. Shantytowns seldom follow any of the previously described urban patterns. They occur in many different zones in urban areas. Many underdeveloped countries have small towns and villages, but few large cities. Shantytown structures are made of materials ranging from cardboard to concrete block. People in arid regions build

with adobe, which consists of earthenware bricks, sometimes reinforced with straw. Even larger cities can have shantytowns around their perimeters.

(a) These structurally unsound buildings have no common floor pattern, and they seldom have more than one room. Firing a round into one of these substandard structures could result in overpenetration. That is, the round could penetrate the walls of more than one building. This could endanger friendly forces as well as noncombatants. When firing into these types of areas, using reduced or no explosive charges prevents structural damage or complete destruction. Fires are also more likely to develop and spread in shantytowns.

(b) Depending upon the type of operation, temporary structures such as those found in shantytowns can either increase or decrease mobility, compared to other sections of an urban area. A unit with armored vehicles can easily knock down and traverse simple structures without affecting mobility at all. *However*, destroying them can cause unacceptable civilian casualties. In this case, the shantytown restricts mobility, because few, if any, vehicles can travel its narrow paths. Regardless, commanders must carefully consider the effects of their operations in this area, to include vehicles and weapons. The weak structures afford little protection, which increases the risk of fratricide, civilian casualties, and large, rapidly spreading fires.

9-3. URBAN BATTLESPACE

Urban areas mainly consist of man-made features, such as buildings, which provide cover and concealment, limit fields of observation and fire, and block movement of forces--especially mechanized or armored forces. Thick-walled buildings provide ready-made, fortified positions. Thin-walled buildings could offer important fields of observation and fire. Another important aspect of the urban battle space is that it complicates, confuses, and degrades the commander's ability to identify and control his forces. All of these factors affect the urban battlespace.

a. Commanders and leaders can enhance situational understanding by maintaining a clear understanding of their urban battlespace (Figure 9-1), which includes:

(1) ***Urban Airspace***. Airspace offers a rapid avenue of approach into an urban area. Obstacles such as rubble, vehicles, or constructed barriers do not affect aviation assets. However, pilots must avoid power lines, towers, sign poles, and billboards. To ensure improved flight planning, reconnaissance elements can locate, identify, and report these obstacles.

(2) ***Supersurface***. The term "supersurface" refers only to the top, roof, or apex of a structure. These areas can provide cover and concealment, limit or enhance observation and fields of fire, and, depending on the situation, can enhance, restrict, canalize, or block movement. Historically, most movement within the urban environment has been on the surface or between supersurfaces (from rooftop to rooftop). Supersurface areas can provide excellent concealed positions for snipers, automatic weapons, light and medium antitank weapons, and man-portable air defense systems. In many cases, they enable top-down attacks against the weakest points of armored vehicles (their decks) and unsuspecting aircraft (their underbellies).

(3) ***Intrasurface***. The term "intrasurface" refers to the floors within the structural framework, that is, all areas between ground level (surface) and the structure's permanent roof or apex (supersurface). It includes all interior surfaces. Historically, the most

numerous and most intense combat engagements occur in this intrasurface area, which is a diverse and complex combat environment. The intrasurface of a building greatly limits reconnaissance and surveillance but, at the same time, enhances cover and concealment. Some intrasurface areas have mobility corridors within and between structures at upper levels. These corridors can conceal snipers, automatic weapons, light and medium antitank weapons, and man-portable, air-defense systems. In many cases, intrasurfaces allow top-down attacks against the weakest points of armored vehicles (their decks) and unsuspecting aircraft (their underbellies).

(4) ***Surface***. This includes all ground-, street-, and water-level surfaces. Streets and open areas provide a rapid approach for ground movement in urban terrain. Buildings canalize units that try to move along the streets. This leaves the unit little room to move. Conversely, the enemy can observe and engage forces that move across large open areas such as parks, athletic fields, and parking areas.

(5) ***Subsurface***. This includes all underwater and subterranean areas such as subways, sewers, public utility systems, and cellars. Dismounted elements can move through subsurface areas. Both attacker and defender can use subterranean routes to outflank or turn the opposition, or to infiltrate, ambush, counterattack, and sustain operations. Some urban subsurface systems are hard to find, but can still play an important role in the outcome of operations.

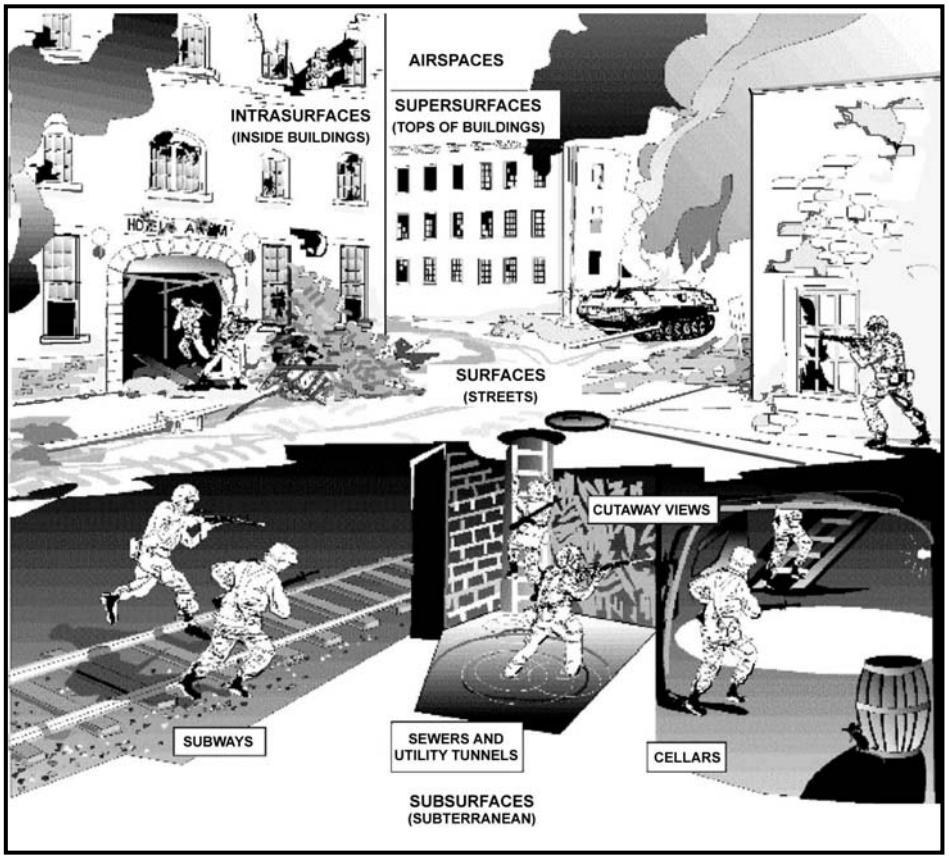

Figure 9-1. Urban battle space.

b. Reconnaissance platoon and squad leaders must be able to identify building types, construction materials, and building designs, and they must understand the effectiveness and limitations of weapons against each of these. They must also be able to communicate this information to the battalion so that the battalion staff can understand and visualize the three-dimensional battle space. As friendly and enemy forces and civilians move, and as weather and environmental conditions change, leaders in the reconnaissance platoon and squad keep up with the changes to the battle space. Timely reporting of any changes in the area of operations will allow for the movement of assault, support, and breaching elements in the offense; the repositioning of platoons and squads in the defense; and synchronization of CS and CSS assets. Other factors that affect the urban battlespace include—

- Casualty evacuation procedures.
  Resupply procedures.
  Procedures for handling of enemy prisoners of war.
- Procedures for handling of noncombatants.
- Rules of Engagement.
- Weather conditions.
- Battlefield obscuration.
- Communications.
- Movement of vehicles.

9-4. CHARACTERISTICS OF URBAN OPERATIONS

Many characteristics distinguish UO from other environments.

a. **Technology**. US technological advantages contribute little to urban operations.

(1) ***Air Power***. Air power offers little help to Infantry units fighting from buildings, because an adept enemy "hugs" the opposition to deny them use of overwhelming firepower.

(2) ***Training and Equipment***. The training and equipment used against a mobile, armored threat might work poorly in urban operations.

b. **Size of the Fight**. Urban combat is primarily a small-unit Infantry fight. Accomplishing the mission requires lots of Infantry. Regardless, combined arms must support the Infantry. For this reason, the reconnaissance platoon performs its traditional mission as the "eyes and ears" of the battalion commander. Well in advance of the operation, the platoon must locate and identify the enemy's disposition, strength, and weakness. This information helps the commander develop the battalion's operational concept.

c. **Decentralization**. Infantry urban combat is primarily a squad and platoon fight characterized by individual, moment-to-moment decisions. That is why ROE training is important. Commanders and leaders help by anticipating what the soldiers will need to accomplish the mission. Their goals include speed, precision, and keeping to a minimum the number of soldiers in close combat with the enemy.

d. **Characteristics of Urban Threat**. Snipers, grenade launchers, booby traps, and rocket-propelled grenades (RPGs) constitute the greatest threats in urban combat. Soldiers can expect to find booby traps on doorways, windows, and entrances to underground passageways.

e. **Changing Conditions**. In UO, reconnaissance platoons and squads execute missions in changing conditions. For example, switching from stability and support operations to combat operations changes operational conditions from high-intensity to precision, or vice-versa. Political and threat situations determine when this change must occur. The reconnaissance platoon receives ROE changes from its parent battalion headquarters. These changes normally require the platoon to modify the way it fights in urban areas. Squads and platoons select different TTP based on the conditions they face. The ROE ultimately determine these conditions for the reconnaissance platoon and squad.

f. **Limited Observation**. The density of urban terrain limits the fields of observation substantially. Therefore, the distances at which the reconnaissance teams acquire and identify enemy positions and personnel drop greatly. To achieve a broad range of visibility across the battalion sector during a screen, the reconnaissance squads occupy several OPs at once. To reconnoiter an area, a zone, or a route effectively in UO, R&S teams must adapt their practices.

g. **Small-Unit Battles**. The closeness of urban operations increases the likelihood that the enemy will detect the reconnaissance team. Because some urban areas offer poor concealment and cover, the enemy is most likely to detect soldiers moving through urban areas. He is far less likely to detect soldiers operating from static positions inside buildings. If compromised in urban terrain, reconnaissance teams and squads can become isolated or at least feel isolated. When this happens, a break-contact drill becomes a series of small-unit battles. Soldiers and squad or team leaders must have the initiative, skill, and courage to accomplish their missions while isolated from their parent units. Individual soldiers train physically and psychologically for this type of operation.

h. **Communications**. Urban operations require centralized planning and decentralized execution. Therefore, effective vertical and horizontal communications are critical. Leaders must trust their subordinates' initiative and skill, which can only come from training. The state of a unit's training and cohesion are vital, decisive factors in the execution of operations in urban areas.

(1) ***Radio***. Structures and a high concentration of electrical power lines normally degrade radio communications in urban areas. The construction materials in many buildings prevent radio waves from passing through them. Units often have too few radios to communicate with subordinate elements as they enter buildings and move through urban canyons and defiles.

(2) ***Visual Signals***. The platoon can use visual signals, which are often ineffective due to the screening effects of buildings, walls, and other vertical structures. Leaders must plan, widely disseminate, and ensure understanding by all assigned, attached, or OPCON units.

(3) ***Sound Signals***. Increased noise makes the effective use of sound signals difficult. Also, verbal signals may communicate the location and intent of the unit to the enemy.

(4) ***Messengers***. Messengers are slow and susceptible to enemy fire when moving between buildings or crossing streets.

(5) ***Wire***. Wire is the best way to control the defense of an urban area. Given sufficient assets, it offers an alternative means of communications during offensive operations. Its weakness is its vulnerability to damage from falling or flying debris, exploding munitions, and moving vehicles.

i. **High Expenditure of Ammunition**. Reconnaissance platoons conducting UO should increase the individual combat load and the types of ammunition they carry. Due to the increased likelihood of compromise and the chance of isolation, reconnaissance elements might need more firepower to break contact with a pursuing enemy element. Short ranges to and briefly exposed targets, limited visibility, constant engagements, and the requirement to suppress enemy fire indicate the need for each squad to carry an AT4, a LAW, extra rifle ammunition, 40-mm grenades, hand grenades, and explosives. They will need all of these, and plenty of them.

DANGER

BEFORE EMPLOYING EXPLOSIVES OR FRAGMENTATION-TYPE MUNITIONS, CONSIDER THE INTEGRITY OF THE STRUCTURE. REMEMBER THAT SHANTIES ARE POORLY CONSTRUCTED, AND THAT COLLATERAL DAMAGE COULD ENDANGER THE LIVES OF SOLDIERS OR NONCOMBATANTS.

j. **Increased Casualties**. Before deploying into urban areas, leaders make sure the soldiers know basic first aid and preventive medicine. Casualties in urban operations are higher than in other types of terrain due to the following:

(1) ***Accidents***. More casualties result from shattered glass, falling debris, rubble, ricochets, urban fires, and falls from heights than from actual combat engagements.

(2) ***Situational Awareness***. Difficulty in maintaining situational awareness also increases casualties, because leaders find preventing fratricide more difficult if they do not know the locations of other friendly personnel.

(3) ***Psychological Illnesses***. Stress naturally contributes to the number of accidents, fratricide incidents, and illnesses. Stress can also trigger other, latent psychological problems.

(4) ***Physical Illnesses or Environmental Hazards***. Nonbattle injuries result from illnesses, environmental hazards, unsanitary conditions, contaminated water, toxic industrial materials, and so forth.

k. **Three-Dimensional Terrain**. Friendly and threat forces operate in a three-dimensional battle space. Engagements can occur above, on, or below the surface, or inside or outside buildings. Another complicating factor is that both friendly and enemy forces can control different floors or portions of multistory buildings.

l. **Reliance on Human Intelligence**. Until they have a better way to gather information, leaders need HUMINT. Reconnaissance efforts of battalion and brigade assets can help. So can the shaping operations executed by division or joint TF assets. Companies and below normally rely on information received from human sources such as from the reconnaissance platoon or from their own R&S efforts. The battalion staff gives the reconnaissance platoon a list of PIR. These help the commander make decisions while planning operations. Examples of the PIR are:

- Locations of enemy command posts.
- When defending, locations of the most likely enemy avenues of approach.
- Streets and alleys that restrict movement of armored and wheeled vehicles.
- Locations of likely enemy strong points and engagement areas.
- Enemy's air defense capability against friendly aircraft.

m. **Need to Isolate Critical Points**. During offensive operations, companies and platoons assault buildings; squads clear the buildings and the rooms. The unit seldom has enough assets to isolate large parts of the urban area. Therefore, it couples an aggressive and effective reconnaissance plan with skillful use of direct and indirect fires, obscurants, and maneuver to isolate key buildings or parts of buildings, to secure footholds, and to clear.

n. **Snipers**. Historically, snipers have been very useful in urban operations. They provide long- and short-range precision fires and can help the company and platoon isolate the enemy. They provide precision fires during stability operations (Section III). Used properly, the snipers' observation capability supports the battalion reconnaissance mission.

9-5. DETAILED DESCRIPTION OF THREAT TACTICS

The increasing availability of sophisticated technology has created unorthodox tactics for exploiting potential opponents. These tactics seek to counter the technological and numerical advantages of US joint systems and forces. They also seek to exploit the constraints placed on US forces due to cultural bias, media presence, ROE, and distance from the crisis location. To offset their inherent weaknesses, enemy forces seek an advantage in urban terrain. They remain dispersed and decentralized, and they adapt their tactics to counter a US response. They range from units equipped with small arms, mortars, machine guns, antiarmor weapons, and mines up to very skilled mechanized and armored forces with the latest equipment. While the active threats will vary widely, many techniques will be common to all. Figure 9-2 shows some tactics available to potential threats that oppose US forces in urban areas.

- Use the population to advantage.
- Win the information war.
- Manipulate key facilities.
- Use all dimensions.
- Employ urban-oriented weapons.
- Engage the entire force.
- Focus attacks on service support and unprotected soldiers.

Figure 9-2. Urban threat tactics.

a. **Use the Population to Advantage**. When developing the situation, the platoon leader should consider the urban populace to be a key factor. The force it supports will have a distinct advantage. Future urban battlefields can expect to have large segments of the populace still in place, as it was in Budapest, Hungary and Grozny, Chechnya. Infantry units conducting urban stability and support operations will certainly expect to conduct missions in and among the residents of the area.

(1) Threat forces can use the local population to support their deception plan. Guerrillas, terrorists, paramilitary, and even conventional soldiers might take on the appearance of the local population, even to the extent of growing facial hair, if needed.

(2) Threat forces will try to take advantage of the US's sense of moral responsibility by trying to burden the Army's logistical and force-protection resources with responsibility for the civil population. To do this, they could herd refugees into friendly-controlled sectors, steal from US-paid local nationals, and hide themselves among civilians during offensive operations.

(3) The civil population can also provide intelligence to threat forces. Local hires serving among US soldiers, civilians with access to base camp perimeters, and refugees moving through friendly-controlled sectors could provide information about friendly dispositions, readiness, and intent. In addition, threat special-purpose forces and hostile intelligence-service assets try to move among well-placed civilian groups.

b. **Win the Information War**. Threat forces try just as hard to win the information war as they do to win politically and militarily.

(1) Portable video cameras, Internet, commercial radios, and cellular telephones are all venues where threat forces can tell their story. They can stage and broadcast fictitious American "atrocities" and send e-mail to groups sympathetic to friendly forces. In either case, the purpose is to undermine the resolve—and therefore also the actual support—of supporting friendly forces. Internet web sites provide easy worldwide dissemination of threat propaganda and misinformation. Threat hackers could try to gain access to US sites in order to manipulate information to their own advantage.

(2) The threat can use the news media skillfully. For example, insurgent campaigns need not succeed tactically or militarily. To gain domestic and world support, they need only make the opposition's campaign seem unpalatable. The media coverage of the Tet Offensive of 1968 affected the will of both the American people and their political leadership. Although the battle for Hue was a tactical victory for the US, the North Vietnamese clearly achieved strategic success by searing the American consciousness with the high costs of urban warfare.

c. **Manipulate Key Facilities**. Threat forces can identify and quickly seize control of critical components of the urban area. This helps them shape the battlespace to their own ends.

(1) ***Telephones***. Telephone exchanges provide simple and reliable communications that anyone can secure easily using off-the-shelf technologies.

(2) ***Sewage and Flood Facilities***. The threat can use sewage treatment plants and flood-control machinery to implement weapons of mass destruction (WMD) or to render sections of the urban area uninhabitable.

(3) ***Broadcast Media***. Media stations significantly improve the information operations position of the controlling force.

(4) ***Power Plants***. Power generation and transmission sites provide means to control significant aspects of civilian society over a large area.

d. **Use the Three Dimensions of Urban Terrain**. The threat will operate throughout the urban environment.

(1) Upper floors and roofs make excellent observation points and battle positions whose height might exceed the height to which many weapons can elevate. Engagements from upper floors strike armored vehicles in some of their most vulnerable locations—their top deck(s), hatches, and, in some cases, in their gunner's stations.

(2) Basements provide firing points below the level that many weapons can depress. They too allow fire at armored vehicles' weak belly armor.

(3) Sewers and subways provide covered and concealed access throughout the area of operations.

e. **Employ Urban-Oriented Weapons**. Whether designed or adapted for urban use, many weapons are quite useful in an urban environment. They reflect the varied nature of the urban environment. Small, man-portable weapons and improvised munitions dominate the urban environment. Figure 9-3 shows some of the weapons the threat favors in urban operations.

- Weapons with no minimum depression or maximum elevation.
- Grenade launchers (automatic and rifle mounted).
- RPGs and other shoulder-fired ATGMs.
- Weapons with little or no backblast (gas-metered, soft launch, and so on).
- Mortars.
- Sniper rifles.
- Machine guns.
- Grenades.
- Flame and incendiary weapons.
- Riot-control and tranquilizer gasses.
- Mines and booby traps.

Figure 9-3. Favored weapons for urban operations.

f. **Engage the Entire Enemy Force**. To avoid the effects of high-firepower standoff weapon systems, threat forces might "hug" units operating in an urban area. They might also try to keep all or a large part of the unit engaged in continuous operations to increase the susceptibility to stress-induced illnesses. UO, by their nature, produce an inordinate amount of combat stress casualties, and continuous operations exacerbate this problem. The threat can keep a large reserve to reduce the effect of combat stress on its own forces.

g. **Focus Attacks on Service Support and Unprotected Soldiers**. Threat forces might prey on soldiers poorly trained in basic Infantry skills. Ambushes might focus on such soldiers during resupply or movement in poorly guarded convoys. The threat uses the separation of small groups and the navigational challenges that characterize urban operations to inflict maximum casualties. They will do this even when they stand to gain no other direct military benefit from the action. Therefore, during certain types of UO, Infantry units could find themselves providing security for logistical units.

9-6. PROJECTED THREAT CAPABILITIES

Some Third World nations modernize their armed forces by acquiring new technologies. Future conflicts could involve Third World forces armed with state-of-the-art weapon systems. Projected future threat force capabilities include—

a. New munitions such as fuel air explosives (FAE), enhanced blast, thermobaric, intense light, and other improved ballistic technologies.

b. Systems with interchangeable warheads, some designed for urban combat.

c. Precision-guided munitions.

d. Robotics.

e. Day or night target-acquisition systems.

f. Elevated gun systems.

g. Improved engineering abilities to breach or emplace obstacles.

h. Soft-launch handheld antitank and flame weapons.

i. Nonlethal incapacitating chemical or biological agents used by conventional forces.

j. Lethal chemical or biological agents used as an asymmetric threat.

k. Improved self-protection (body armor).

l. Improved communications.

9-7. CIVIL CONSIDERATIONS

Along with a detailed picture of the urban terrain, the reconnaissance platoon must provide the commander with an in-depth description of the civilian population to include composition, activities, and attitudes. This information helps the staff develop and analyze plans.

a. Information requirements for the platoon with a multidimensional focus include—

- Political affiliations and grievances.
- Ethnicity.
- Factions.
- Cultural distinctions.
- Living conditions.
- Religious beliefs.
- Attitudes towards US forces (friendly, neutral, and hostile).

b. The platoon leader analyzes the information collected and assesses various ways to control the impact of civilians on the mission. He can recommend that higher headquarters screen or evacuate civilians, prohibit unauthorized movement, divert or control refugee movements, or any combination of these. Higher headquarters relies on his information and analysis to help them determine COAs.

Section II. URBAN RECONNAISSANCE TACTICS, TECHNIQUES, AND PROCEDURES

The primary role of the reconnaissance platoon is to gather information about the enemy and the terrain, and, to a lesser degree, to provide security. The reconnaissance platoon leader and his subordinates know how the multidimensional battlespace will affect their mission. Conducting a reconnaissance mission on urban terrain is, for the most part, the

same as on any other terrain. However, reconnaissance elements must adjust to differences in their standing operating procedures (SOP) and TTP, based on the unique characteristics of the urban terrain.

9-8. COLLECT AND ANALYZE EXISTING INTELLIGENCE

During the planning phase, the reconnaissance platoon leader assesses the assigned reconnaissance objectives and conducts an urban IPB. To begin developing the situation, the platoon collects and analyzes existing intelligence, including map and aerial images (IMINT) and HUMINT. The platoon will begin mapping of the urban area as part of the planning phase.

a. **Urban Maps**. Before entering an urban environment, reconnaissance units develop urban operations sketches. These reconnaissance products, usually created as overlays, serve several purposes. They provide an important supplement to existing maps, which seldom show the detail needed for effective situational awareness. The sketches allow the platoon leader to track his elements with greater accuracy and to give precise location updates to higher headquarters. When he finishes the operations sketch, he hands it over to higher headquarters for use by leaders and soldiers at all levels of the operation. In developing his sketches and overlays, he should try to gain access to the city planner's or civil engineer's maps. They provide accurate, detailed information about the urban area. Then, the platoon conducts an initial map reconnaissance and an aerial photographic reconnaissance. They pinpoint key terrain and other important locations in the AO. Figure 9-4 shows an example of this photographic reconnaissance, which focuses on three specific types of areas:

(1) ***Safe Havens***. Areas that could serve as safe haven for threat forces. Examples include hospitals, police stations, embassies, and any other nominally friendly facilities that could harbor threat elements.

(2) ***Hazardous Areas***. Hazardous areas such as construction sites, dangerous intersections, bridges, and areas of criminal activity.

(3) ***Key or Critical Areas***. Key or critical areas, including but not limited to bridges, parks, industrial complexes, and airports.

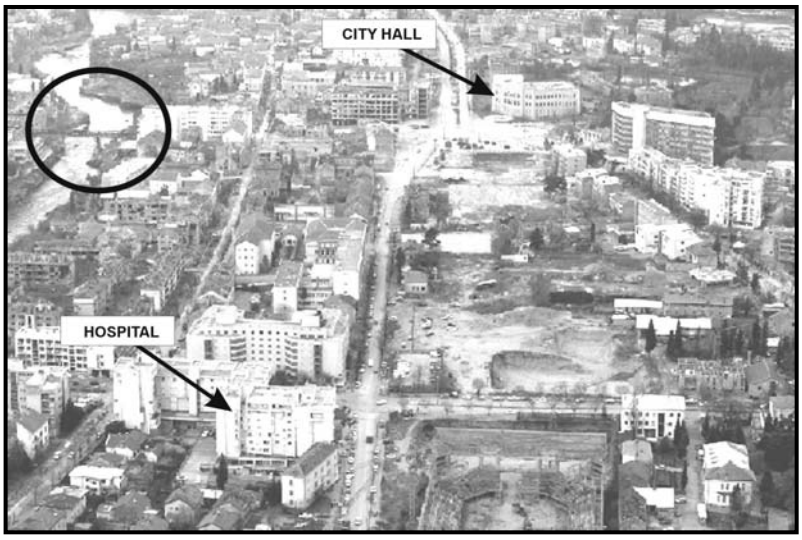

Figure 9-4. Initial photographic reconnaissance in urban operations.

b. **Refinement of Data**. After the platoon completes its basic reconnaissance, they use any available maps and photographs to refine the information. They translate what they know into a form they can transfer to the urban operations sketch. In the process, they incorporate a reference system to identify buildings and streets. Simple naming and numbering conventions, such as assigning odd numbers to buildings on the left side of the street and even numbers to those on the right, simplify orientation and navigation. The platoon leader should avoid using street names, because they can change and because the threat could move street signs to confuse friendly soldiers.

(1) The scouts add graphic control measures and identify sites of tactical and operations significance (Figure 9-5). The platoon leader uses the accumulated information to develop a detailed urban operations sketch (Figure 9-6). He must ensure that the platoon's sketches are consistent with those used at higher levels. In addition, he can develop more than one type of operational overlay, depending on the information collected. Example overlays (Figures 9-7 through 9-9, pages 9-16 through 9-18) show terrain conditions, likely threat positions, and subterranean infrastructure.

(2) The platoon leader distributes the sketches and overlays both within the unit and to higher and adjacent elements. Because individual reconnaissance squads might have to execute operations on their own, the platoon leader must ensure that every soldier understands the sketches, the overlays, and the reference system used. As the platoon conducts operations in the urban area, it confirms the accuracy of the sketches and overlays, adding and adjusting details as needed.

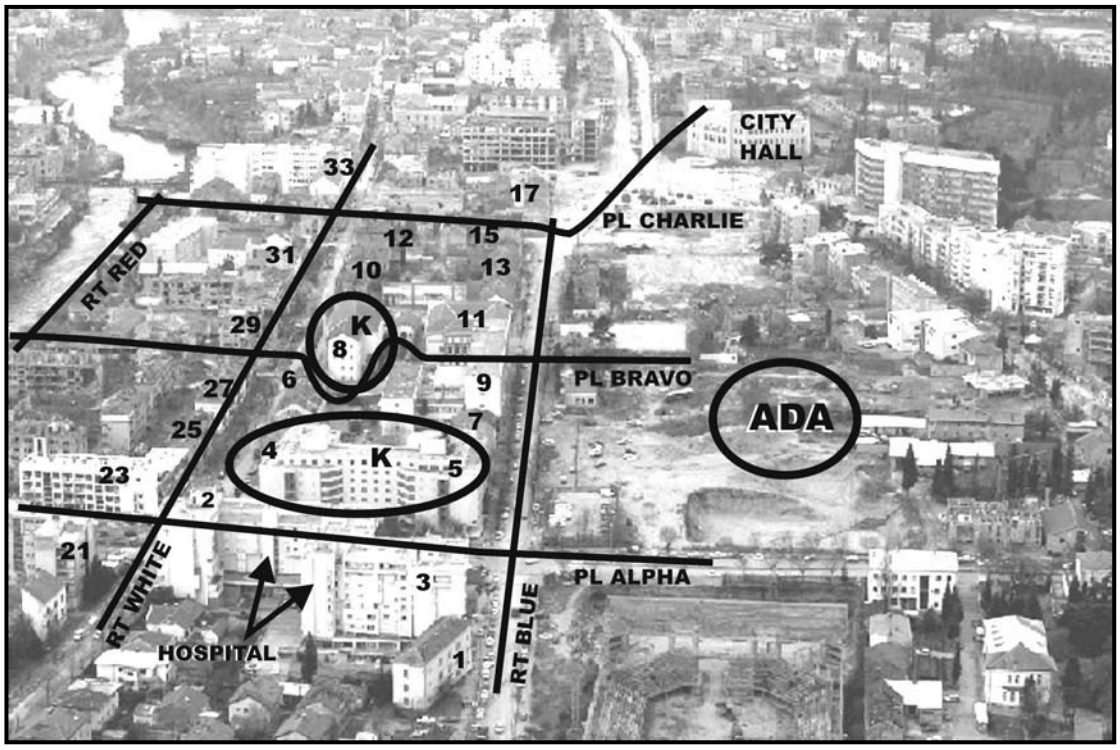

Figure 9-5. Refinement of photographic reconnaissance.

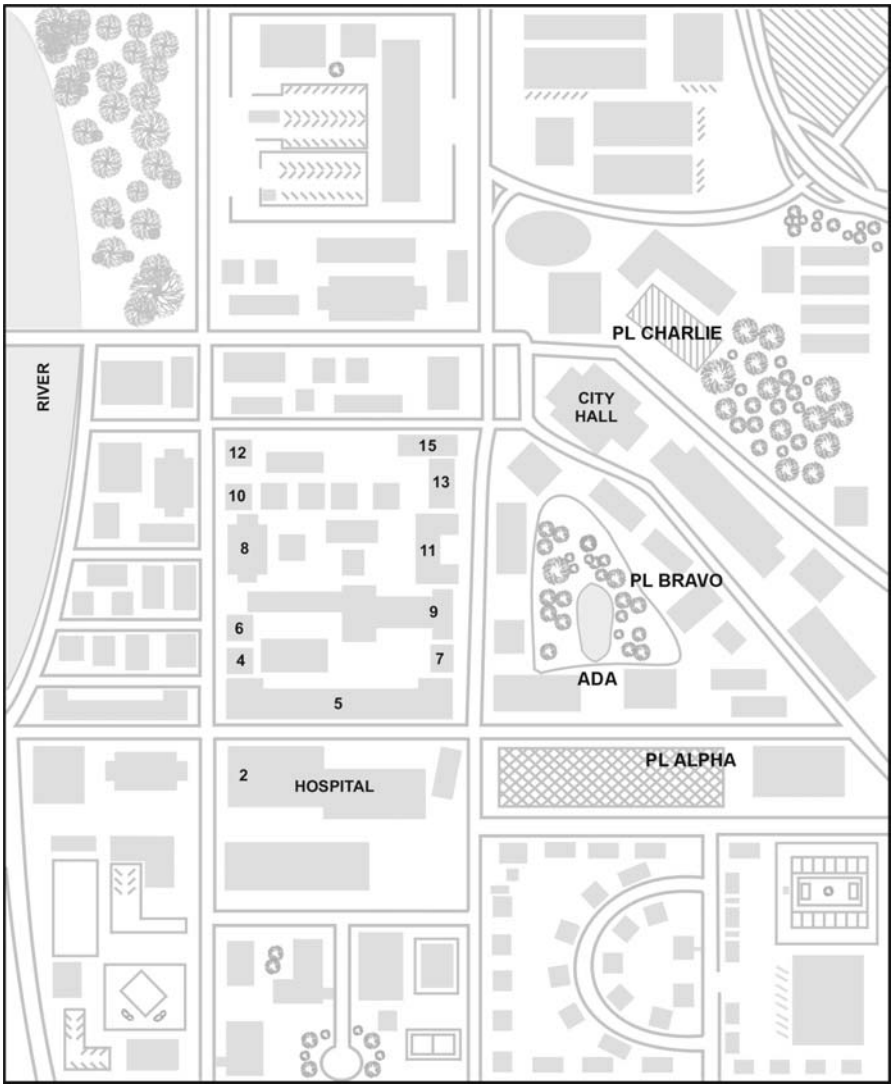

Figure 9-6. Urban operations sketch.

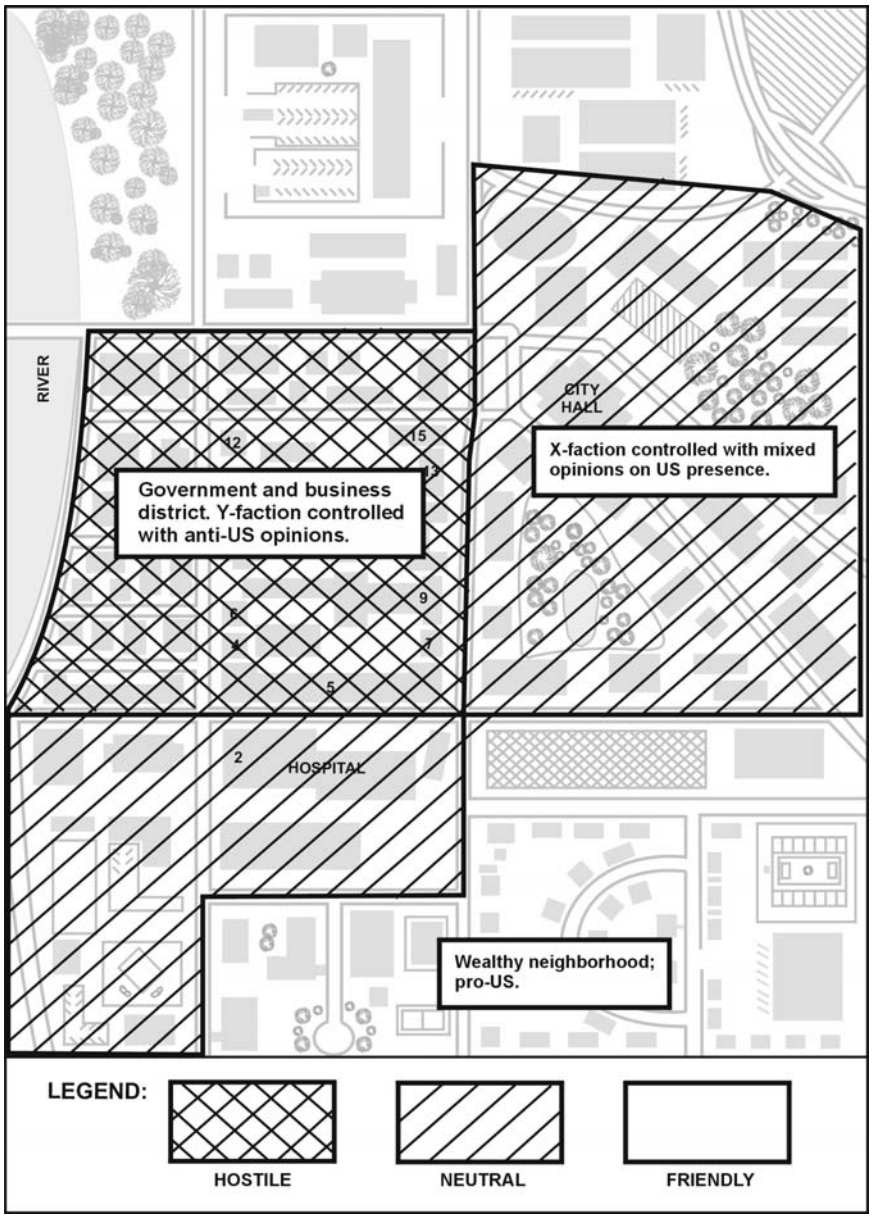

Figure 9-7. Urban operations overlay (terrain classification).

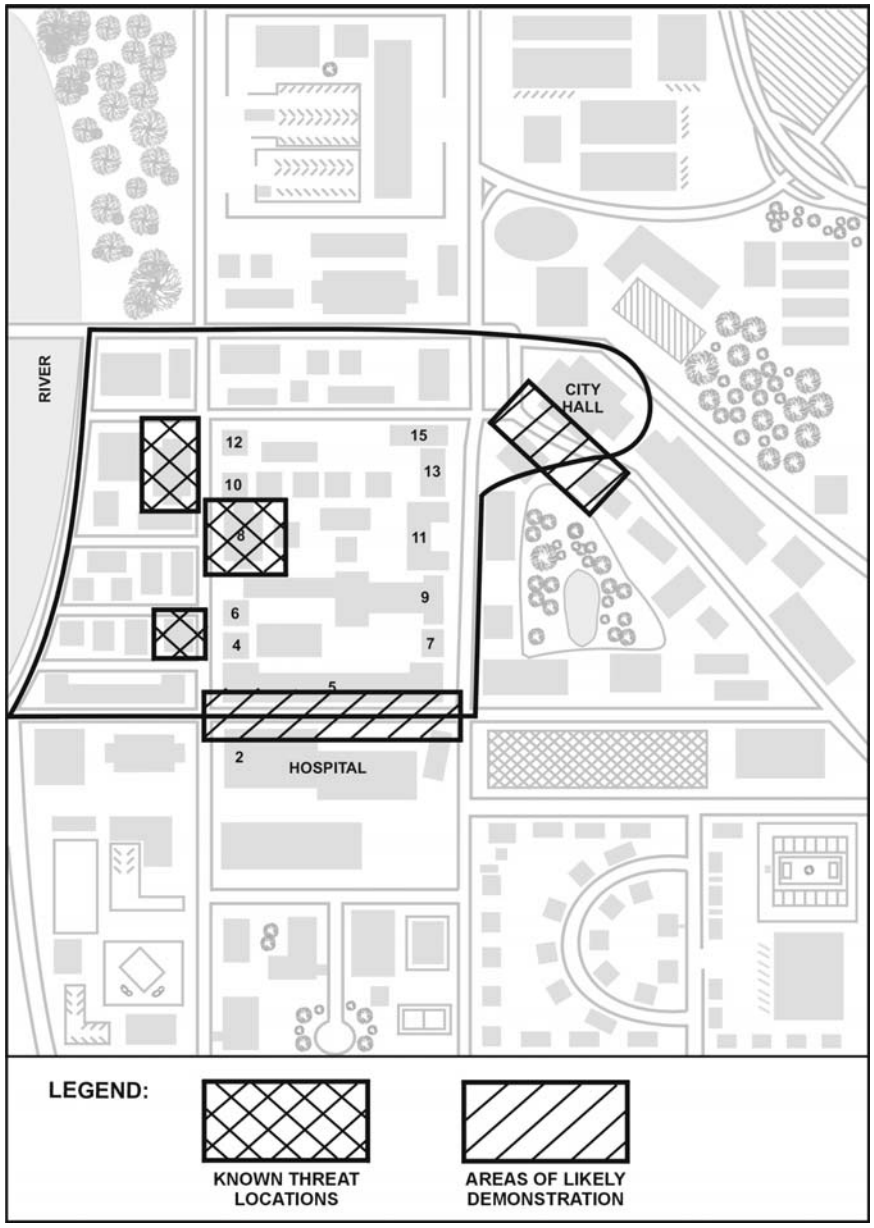

Figure 9-8. Urban operations overlay (threat positions and demonstration locations).

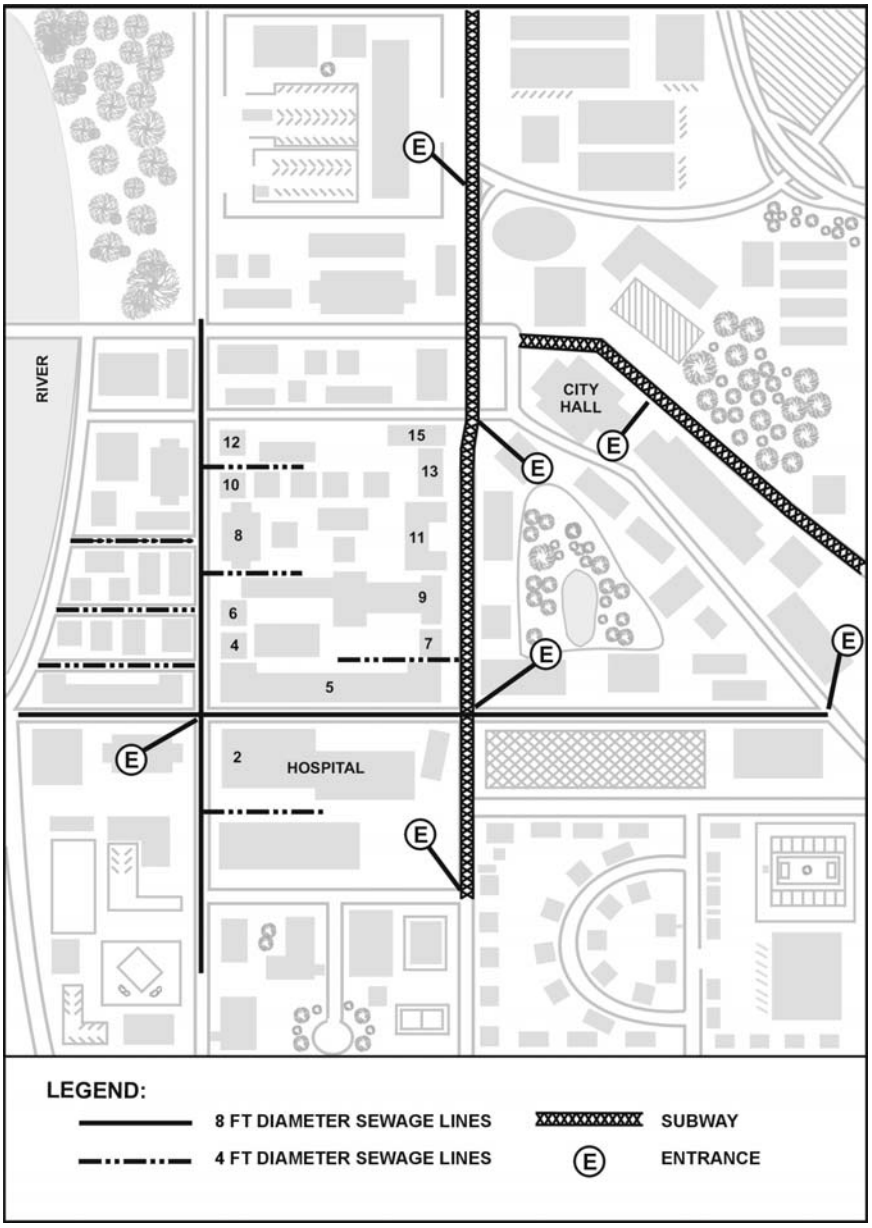

Figure 9-9. Urban operations overlay (subterranean infrastructure).

9-9. HOST NATION SUPPORT

Along with the tactical challenges, characteristics, and other urban-specific considerations listed in Section I, the reconnaissance platoon in UO faces the challenges of navigating in urban terrain and communicating with the local population. To help US forces, the host-nation government might provide local civilian or military personnel to serve as guides and interpreters.

a. When operating in a permissive environment, guides and interpreters can help the platoon communicate with the local population.

b. When conducting stability operations, civilians prove to be a valuable source of information.

c. When conducting combat operations in a nonpermissive environment, reconnaissance elements can use local civilians to guide the element safely to and from the objective area.

9-10. TASK ORGANIZATION

The three-dimensional urban battlefield has a unique set of complexities. Before entering an urban area, the reconnaissance platoon leader must task-organize for that specific operation's challenges. Some of his options are:

a. **Area Coverage**. He can organize to allow for greater area coverage.

b. **Multiple Observation Posts**. He can organize to put "eyes on" multiple areas of interest simultaneously.

(1) He can form two R&S teams from each squad. He can form a two-soldier team and a three-soldier team (Figure 9-10).

(2) He can include a platoon radio operator and eight two-soldier teams under the squad leader (Figure 9-11, page 9-20).

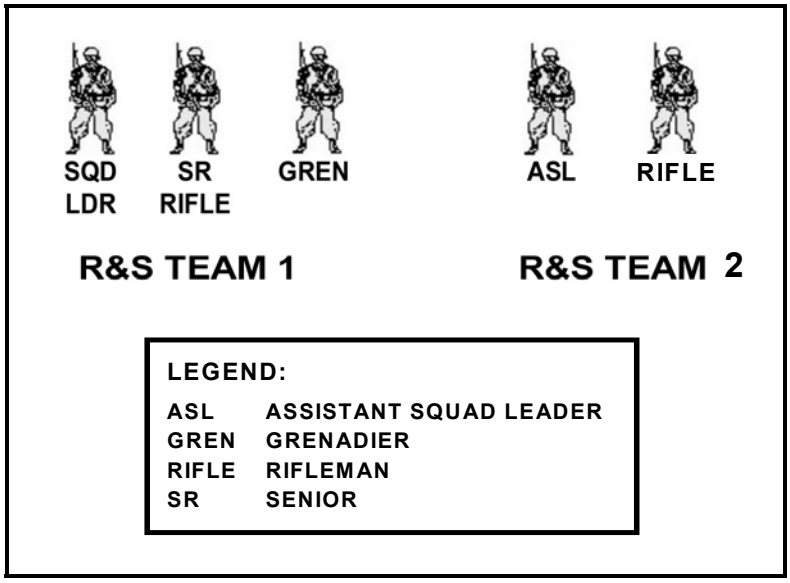

Figure 9-10. Reconnaissance squad.

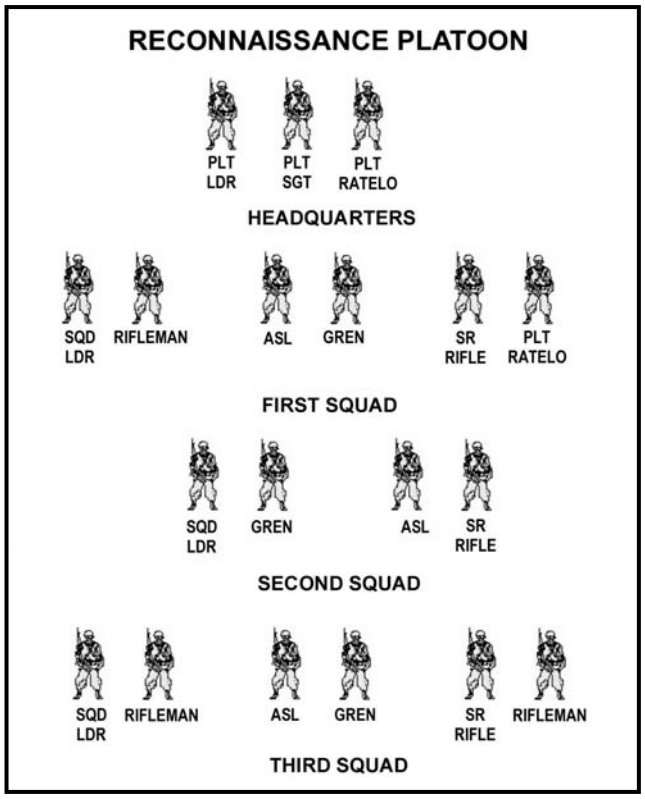

Figure 9-11. Two-soldier reconnaissance and security teams.

c. **Offensive Reconnaissance Mission**. He normally organizes the platoon into three reconnaissance squads, each with its own area, zone, or sector of responsibility.

d. **Security Operation**. This type of operation could consist of screening or guarding. The platoon leader can form the platoon into two-soldier teams (controlled by squad leaders) to cover all of the avenues in the dense urban terrain.

9-11. MOVEMENT

The reconnaissance platoon improves survival on the battlefield by using stealth and dispersion, and by maintaining security during all tactical movements. When conducting tactical movement in urban terrain, reconnaissance elements use their standard movement formations and techniques as much as possible, modifying them as needed. Due to the three-dimensional aspect of urban terrain (streets, buildings, underground, and air), each member of the element must maintain strict observation of his assigned sector, anticipating enemy contact from any direction at any time. To reduce the chances of compromise, reconnaissance elements should plan to move only at night. If they cannot do so, then they must take advantage of any cover afforded by urban terrain.

a. **Individual Movement**. When conducting movement near buildings, the soldier does the following (see FM 3-06.11 [FM 90-10-1], Chapter 3 for more specific movement TTP):

(1) Avoids silhouetting himself in doors and windows.

(2) Avoids moving alone; moves with at least one other soldier for security.

(3) Tries to stay 12 to 18 inches away from walls when moving. Rubbing against walls could alert an enemy on the other side of the wall. Also, ricochet rounds tend to travel parallel to a wall.

(4) Avoids stepping into puddles of water or any other substances that could leave tracks. Carries several plastic grocery bags with him. If he must walk through such a substance, he can cover his boots with the bags, then remove the bags as soon as he clears the obstacle. This prevents him from tracking the substance elsewhere.

b. **Squad Movement**. Squads moving along streets or alleys should use the modified wedge (file), maintaining 3 to 5 meters of separation between individuals. Due to the three-dimensional nature of urban terrain, each soldier in the squad has a specific sector to secure.

(1) For example, the point soldier, or the first soldier in the order of movement, observes street level to his front, generally from 12 o'clock to 1 o'clock. The Number Two soldier observes to the front and across the street (1 o'clock to 2 o'clock), both at street level and upper stories. The squad leader observes the upper stories to his front (his 12 o'clock). He also observes the same side of the street the squad observes. The Number Three soldier observes across the street (from 2 o'clock to 4 o'clock), from street level up. The Number Four soldier provides rear security for the squad. He observes from 4 o'clock to 6 o'clock, street level and upper stories (Figure 9-12).

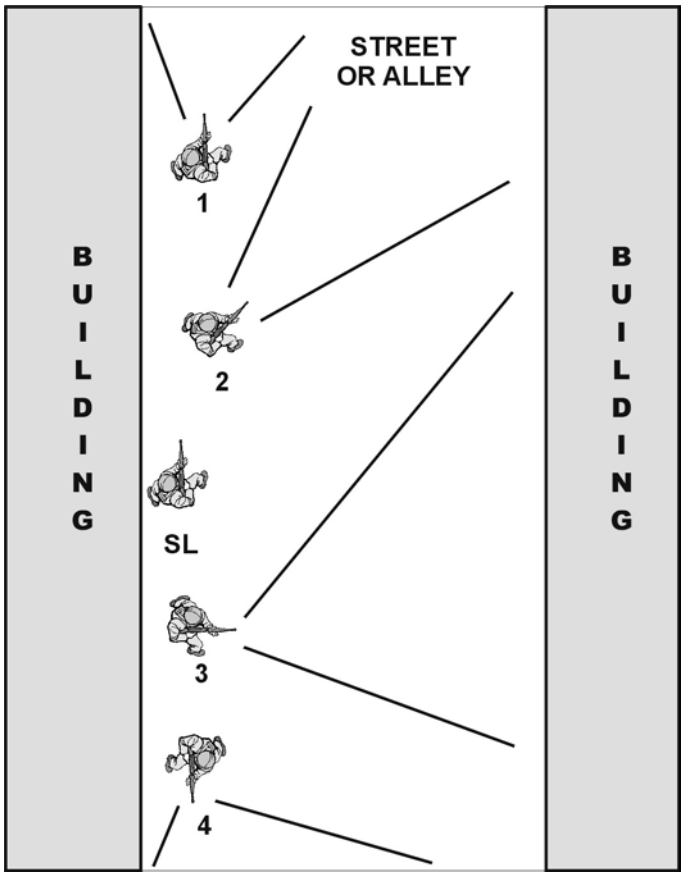

Figure 9-12. Sectors of security.

(2) Moving from building to building or between buildings poses a risk. The enemy can easily detect a squad, which makes a large target for enemy fire. When moving from the corner of one building to the corner of another building, the squad should cross the open area as two separate groups (Figures 9-13 through 9-17, pages 9-22 through 9-24).

(a) Beginning from the standard modified wedge formation for moving along streets (Figure 9-13), the Number Two soldier moves to a position parallel to the Number One soldier.

(b) On signal, Number One and Number Two soldiers rush across the intersection to the adjacent corner (Figure 9-14). As they move, the squad leader and the Number Three and Number Four soldiers position themselves on line and prepare to move. They maintain security to their flanks and rear.

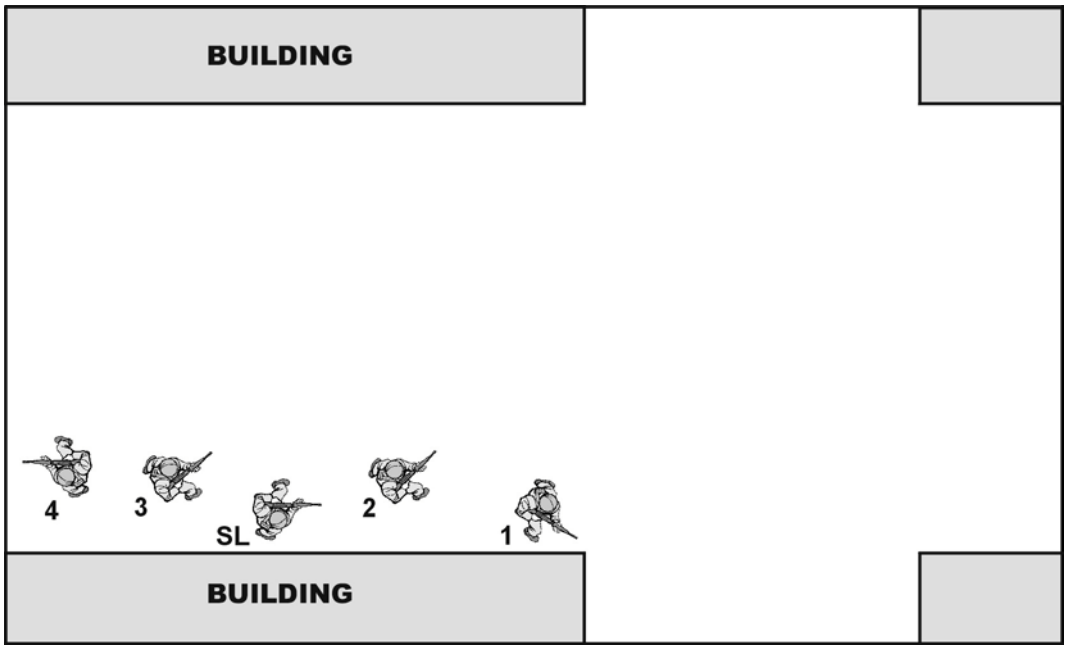

Figure 9-13. Squad prepared to cross from corner to corner.

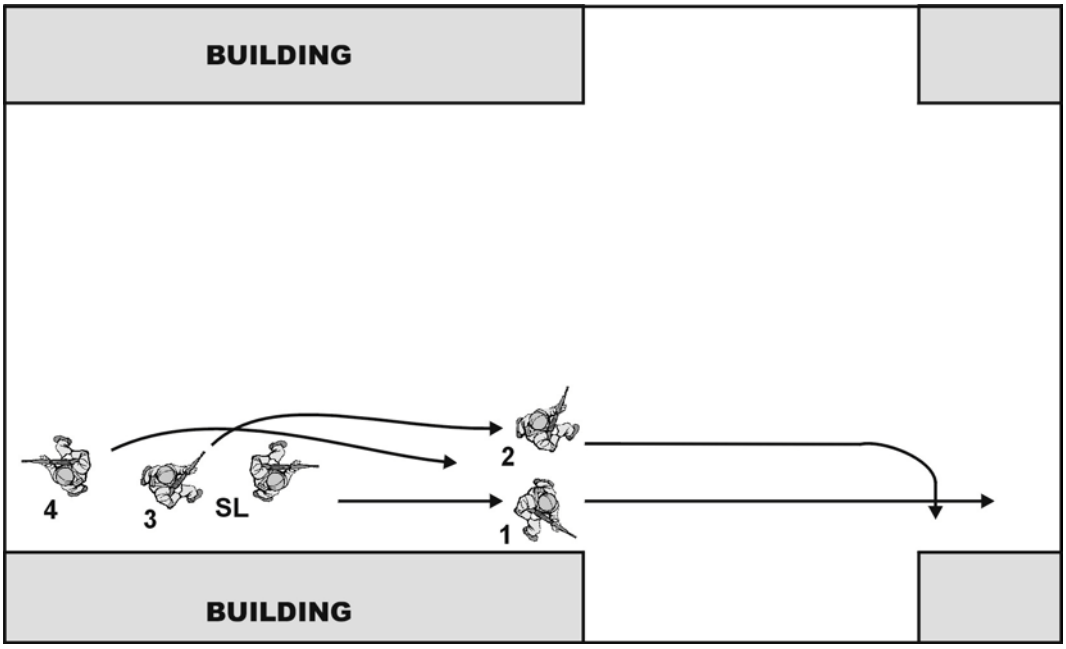

Figure 9-14. Number One and Number Two soldiers cross.

(c) On signal, the Number Four soldier turns toward the direction of movement. He, the squad leader, and the Number Three soldier rush across the intersection (Figure 9-15).

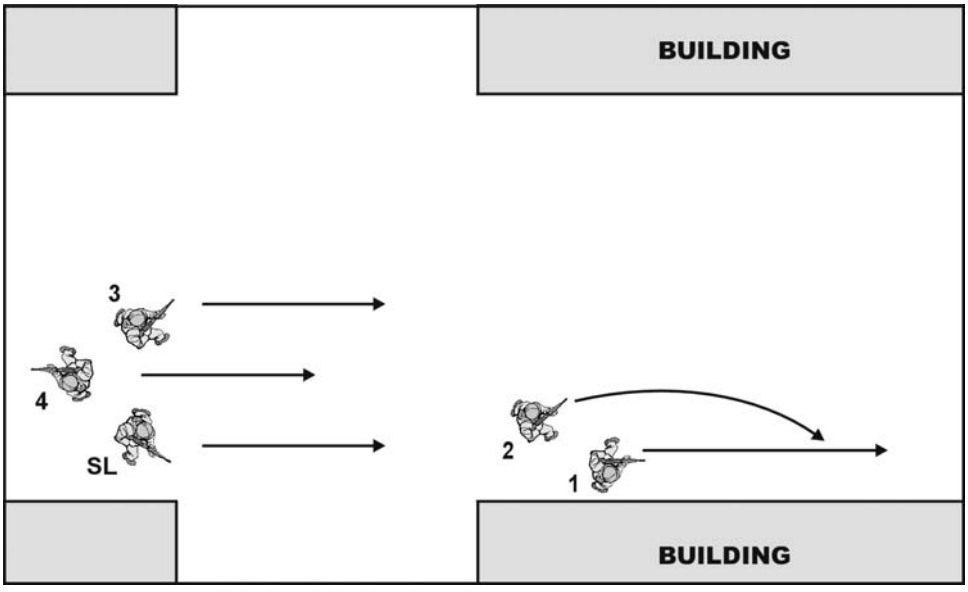

Figure 9-15. Squad leader, Number Three soldier, and Number Four soldier starting to cross.

(d) At the same time, the Number One and Number Two soldiers continue to move in the planned direction of travel (Figure 9-16).

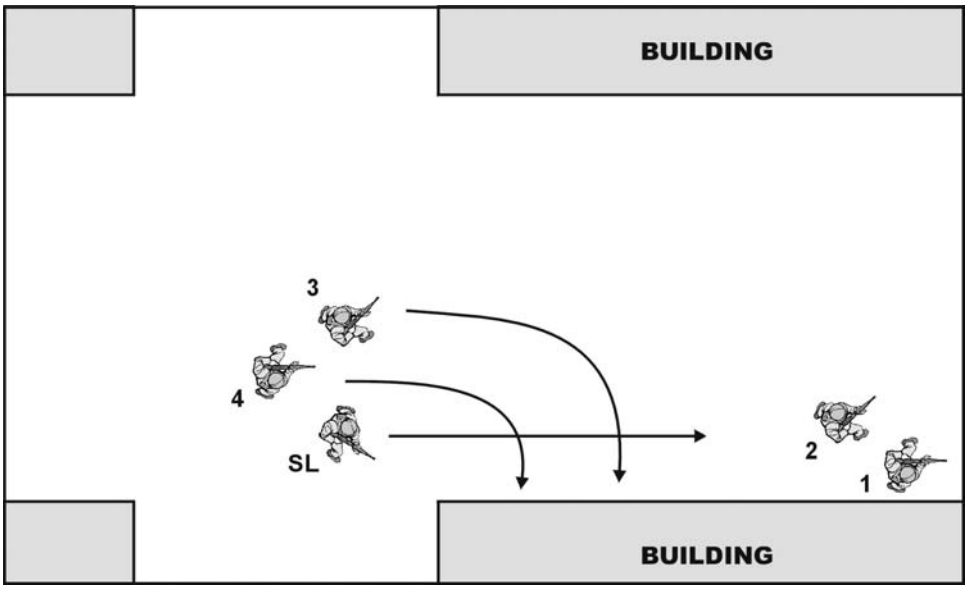

Figure 9-16. Remainder of squad on far side.

(e) When the entire squad has crossed the intersection, they again assume their travelling formation and continue to move (Figure 9-17).

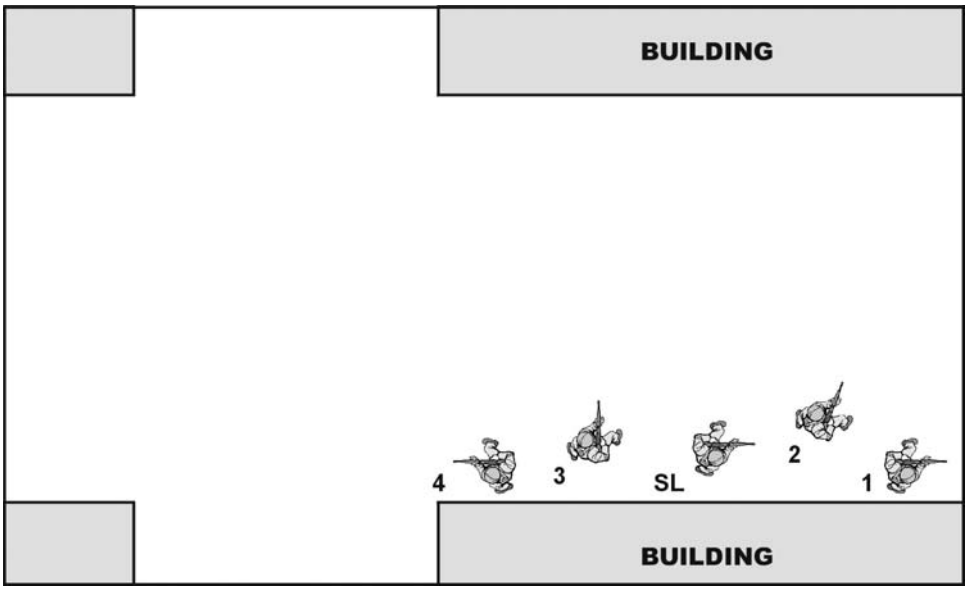

Figure 9-17. Squad resuming movement.

(3) Moving from the side of one building across the street to the side of another building, *not* at a corner, presents a similar problem. The squad uses the same technique

of movement, and it uses the building as cover. In moving adjacent to a building, squad members should keep a distance of 3 to 5 meters between themselves (Figure 9-18).

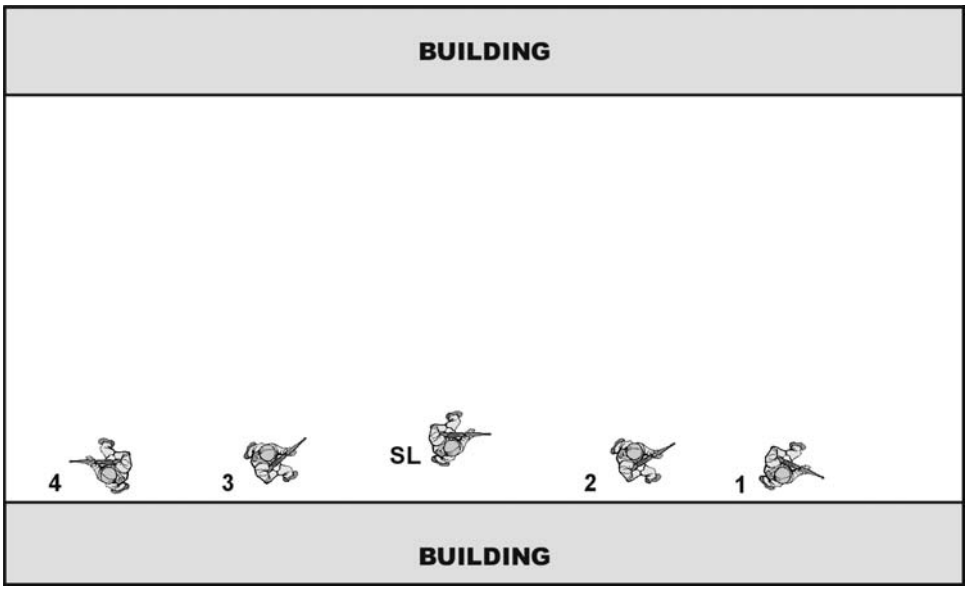

Figure 9-18. Squad moving adjacent to building.

(a) Using a planned signal, all members make an abrupt facing movement (Figure 9-19).

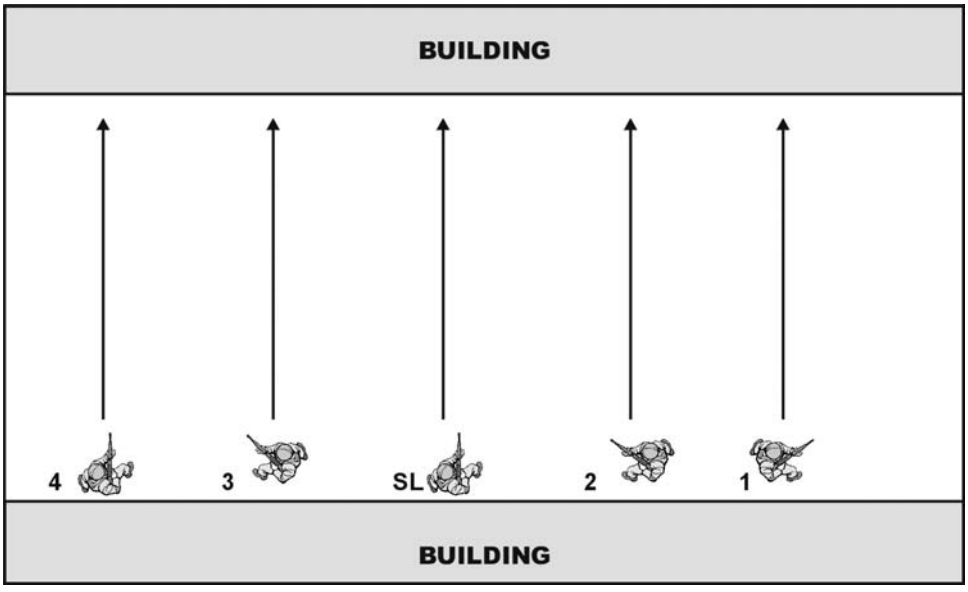

Figure 9-19. Squad executing abrupt facing movement.

(b) The squad crosses the open area to the next building (Figure 9-20).

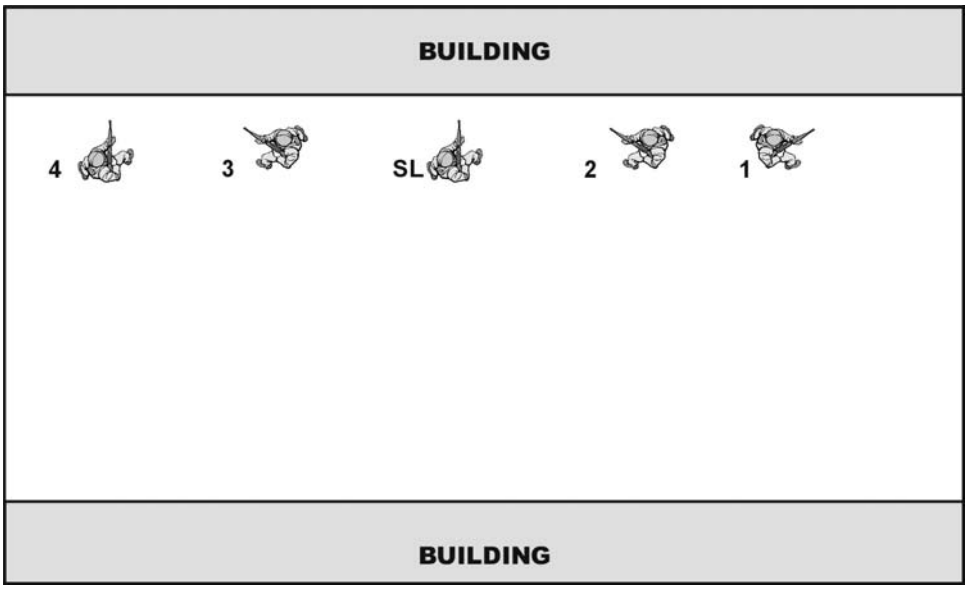

Figure 9-20. Squad crossing open area to adjacent building.

(c) Squad resumes movement (Figure 9-21).

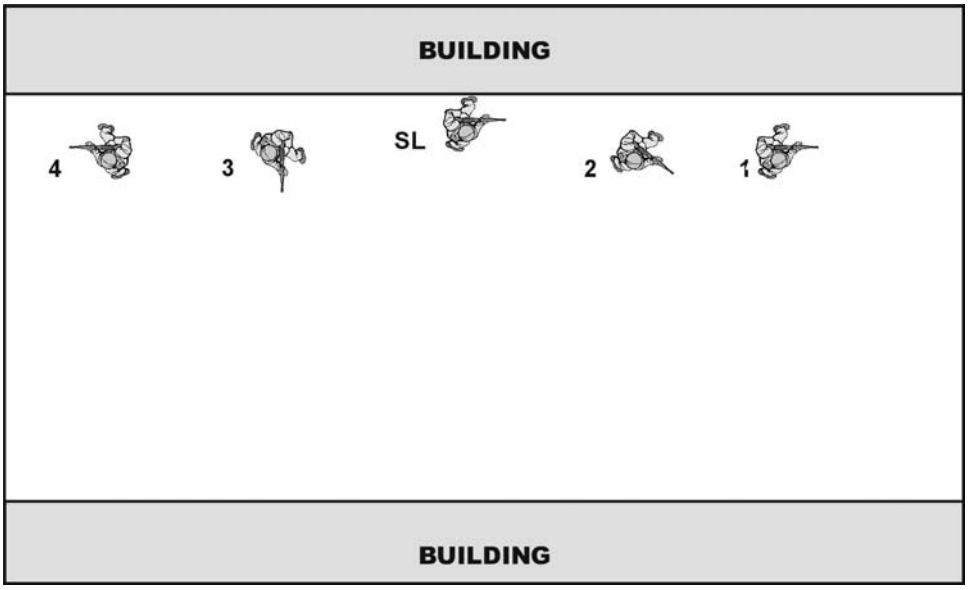

Figure 9-21. Squad resuming movement.

c. **Hallway Movement Formations**. The squad must always be alert. Members provide 360 degrees security at all times. Inside buildings, the squad provides security laterally down corridors. If near stairs or landings, they also provide upward security. The three basic techniques for moving down hallways are the serpentine, the rolling "T," and

the modified trail. Hallway intersections are dangerous areas. The squad should approach them cautiously. The serpentine and rolling "T" movement techniques are used by the reconnaissance squad when speed is required and the chance of enemy contact is low (Figure 9-22).

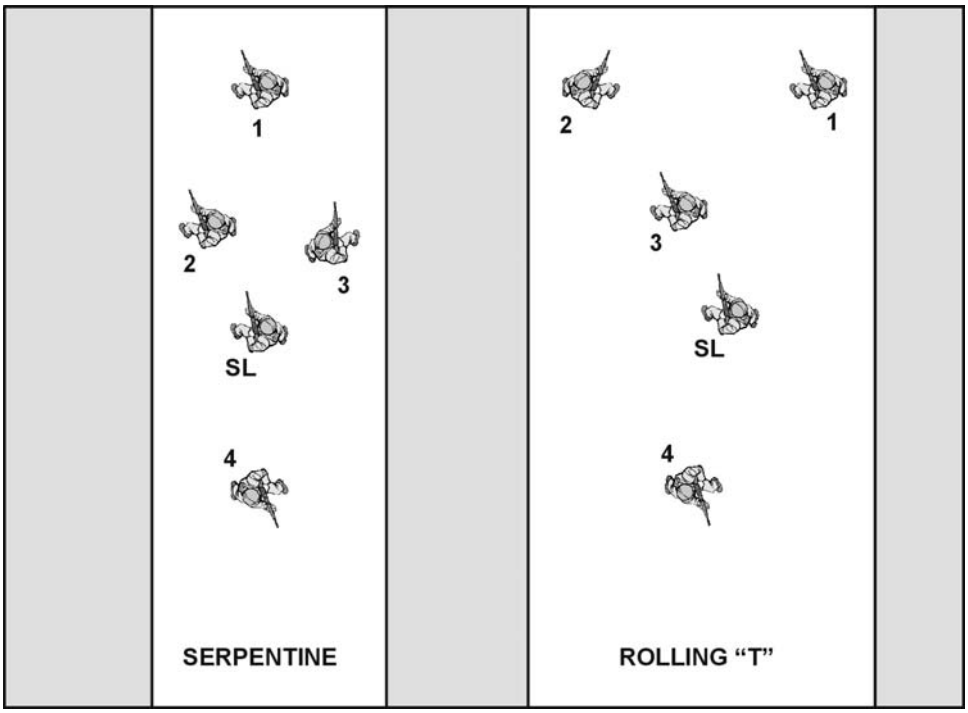

Figure 9-22. Hallway movement techniques.

(1) ***Serpentine Formation***. The five-soldier reconnaissance squad uses the serpentine technique when moving in narrow hallways. The Number One soldier provides security to the front. His sector of security includes the far end of the hall and any doorways near the end. The Number Two and Number Three soldiers observe the left and right sides of the Number One soldier. Their sectors of security include any nearby doorways on either side of the hall. They cover the Number One soldier's flanks. The squad leader moves behind the Number Two and Number Three soldiers and centers on them so he can observe and control the squad. The Number Four soldier provides rear security, observing the hallway behind the squad.

(2) ***Rolling "T" Formation***. The squad uses the rolling "T" technique when moving in wide hallways. The Number One and Number Two soldiers move abreast, observing the opposite side of the hallway from their position. The Number Three soldier observes the far end of the hallway from a position behind the Number One and Number Two soldiers, observing between them. The squad leader moves behind the Number Three soldier so that he can observe and control the squad. Again, the Number Four soldier provides rear security.

(3) ***Modified Trail Formation***. The squad uses the modified trail formation when contact with the enemy is possible and speed is not important. The squad moves along the hallway in a staggered trail formation. Number One and Number Two soldiers observe

the length of the hallway on their respective sides. The squad leader follows, controlling movement. The Number Three and Number Four soldiers position themselves behind the squad leader and stagger their positions as well. They both observe to the rear and along their respective sides (Figure 9-23). When using this movement technique, soldiers should leave enough separation between them to execute the "break contact" drill. No more than two personnel should be in short stretches of hallway (less than 50 feet between intersections) (Figure 9-24).

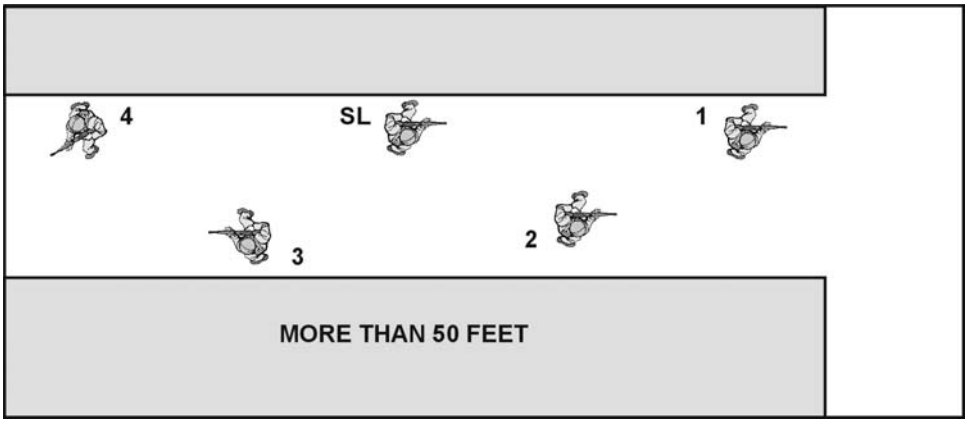

Figure 9-23. Modified trail movement technique (long hallway).

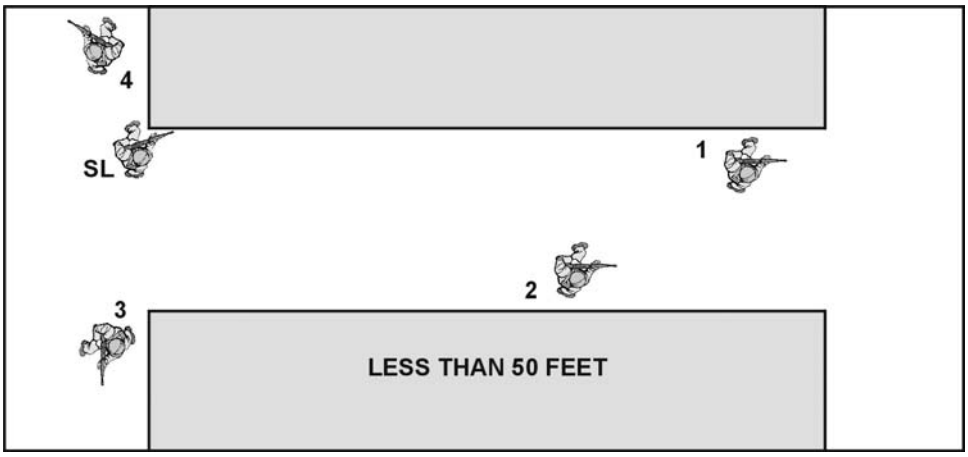

Figure 9-24. Modified trail movement technique (short hallway).

(a) When clearing around corners during modified trail movement, the Number One soldier stops short of the intersection, allowing the Number Two soldier to move abreast of him. At the same time, the squad leader moves forward to assist with security.

(b) Once on line with each other, the Number One and Number Two soldiers adjust their sectors of observation across the intersection and opposite their respective sides of the hallway (Figures 9-25 and 9-26). Once at the intersection, they alternate clearing around their respective corners by using mirrors or a "quick peek."

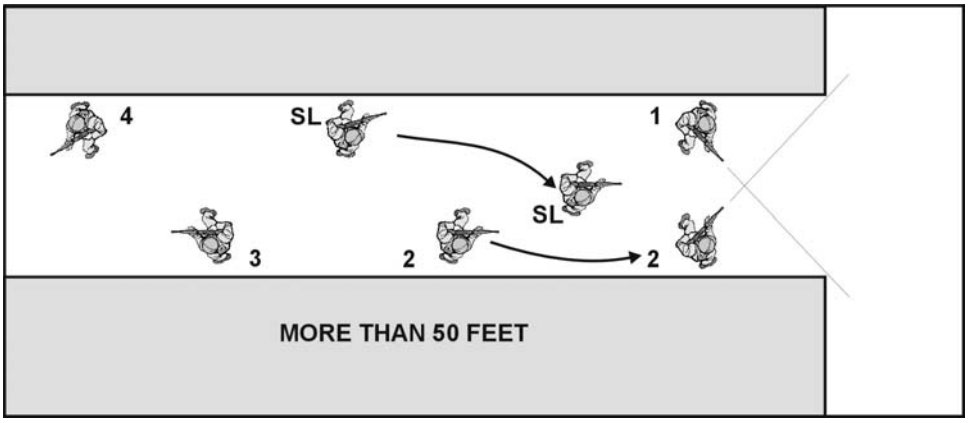

Figure 9-25. Clearing of corner from a long hallway.

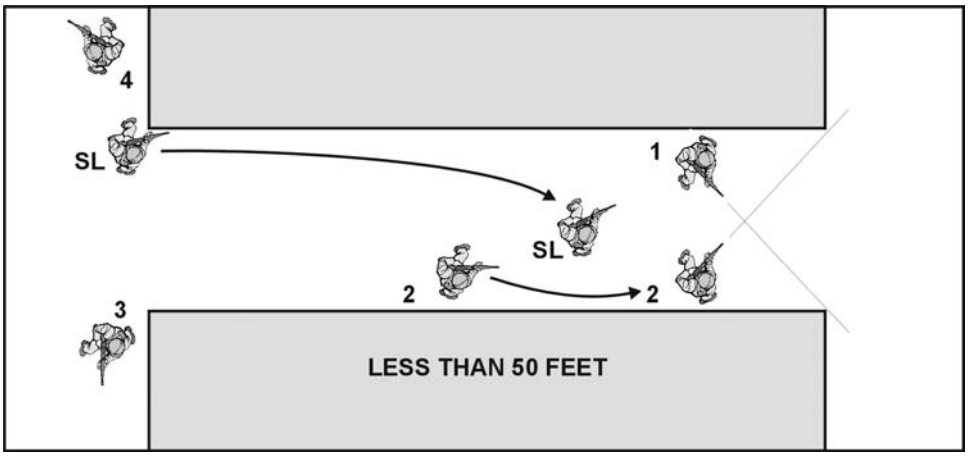

Figure 9-26. Clearing of corner from a short hallway.

d. **Clearing Stairwells and Staircases**. Like a doorway, a stairwell and a staircase create a "fatal funnel." The three-dimensional aspect of additional landings intensifies the danger. The squad's ability to conduct the movement depends on their direction of travel and on the layout of the stairs. The clearing technique follows a basic format:

(1) The squad leader designates two or three soldiers to clear the stairs.

(2) The squad maintains 360-degree/three-dimensional security near the stairs.

(3) The squad leader then directs the clearing team to locate, mark, bypass, or clear any obstacles or booby traps that may be blocking access to the stairs.

(4) The clearing team moves up (or down) the stairways using either the two- or three-soldier "flow" technique, which provides for overwatching up and down the stairs during movement. The three-man variation works best (Figure 9-27, page 9-30).

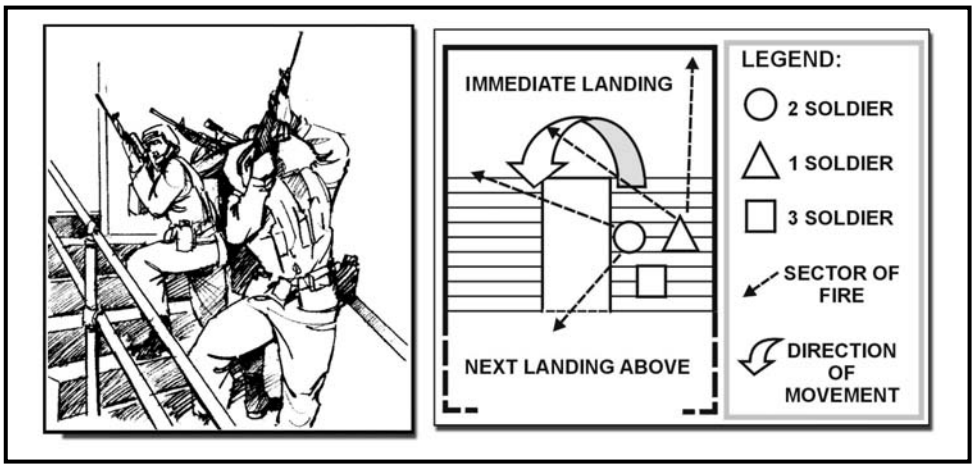

Figure 9-27. Three-soldier "flow" clearing technique.

9-12. ACTIONS ON ENEMY CONTACT

Though the reconnaissance element tries to avoid enemy contact, it cannot always do so. When operating in urban terrain, the reconnaissance element initially does the same thing when confronted by an opposing enemy force as it would in any other terrain. It breaks contact as quickly as possible, accounts for all personnel, moves to the designated rally point, and notifies higher headquarters.

a. The majority of contacts occur in canalizing terrain such as streets, alleys, and hallways. Contact can occur by chance or as a deliberate enemy action such as an ambush or counterreconnaissance. Once it makes contact, the reconnaissance element either breaks contact (meets enemy by chance) or reacts to contact (ambushes the enemy) near or far. This increases survivability. Once the squad is out of contact, it accounts for all personnel, tries to notify higher headquarters, withdraws from the structure, and proceeds to the rally point.

b. When it makes contact in a street or alley, the reconnaissance element should first try to disengage using a covered route around a corner or into a building. Then, it should keep moving out of the area. If this is not immediately possible, soldiers should seek the nearest covered or concealed position and return fire. The reconnaissance leader directs 40-mm HE, hand grenades, and small-arms fire onto the enemy positions and employs screening smoke to conceal movement. He begins a controlled bounding movement rearward and continues until the entire element moves out of range of enemy fire. He accounts for all personnel, tries to notify higher headquarters, and withdraws to a planned rally point.

c. When the reconnaissance element makes contact while moving inside a building (hallway or stairwell), it first tries to break contact by moving around corners or into adjacent hallways, then it continues to move out of the area.

(1) If the element makes contact at close range (15 meters or less) and cannot find cover, the Number One and Number Two soldiers engage the enemy at once with rapid semiautomatic fire. At the same time, they assault the threat until they neutralize it (Figure 9-28). Other members of the squad (the Number Three soldier and the squad leader) should stay prepared to engage any targets that present themselves. However, they

should not fire past the Number One and Number Two soldiers. The Number Four soldier seeks cover and provides rear security.

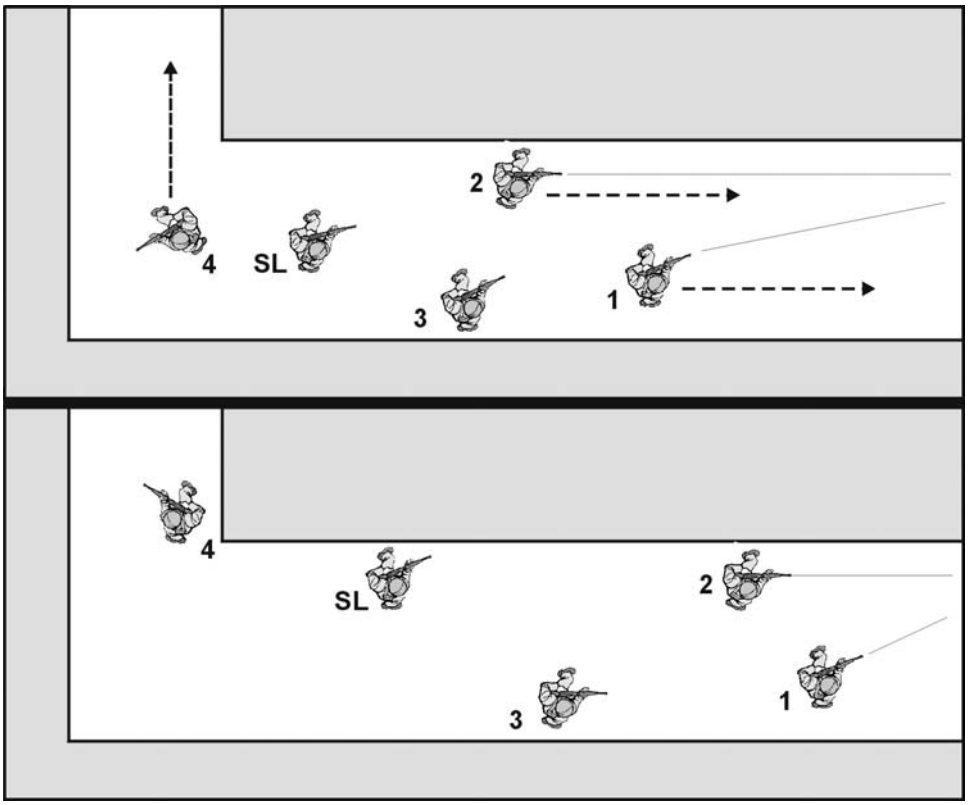

Figure 9-28. Reaction to contact (near).

(2) If the reconnaissance platoon makes contact at a range greater than 15 meters, and if it can find no immediate way out, then the Number One soldier starts engaging the enemy with rapid semiautomatic fire. It withdraws to the rear, and the Number Two and Number Three soldiers assume kneeling positions. The Number Two soldier engages the enemy with rapid semiautomatic fire as well. The squad leader shifts to one side of the hall and assumes a kneeling position, ready to provide covering fire as his squad withdraws. The Number Four soldier (facing to the rear) moves to the nearest hallway intersection or doorway that offers cover (Figure 9-29, page 9-32). He ensures the area is secure. Once the Number One soldier clears the Number Three soldier's field of fire, the Number Three soldier begins to engage the enemy with rapid semiautomatic fire (Figure 9-30, page 9-32). After moving to a position forward of the Number Four soldier, the Number One soldier provides security along the rearward hallway.

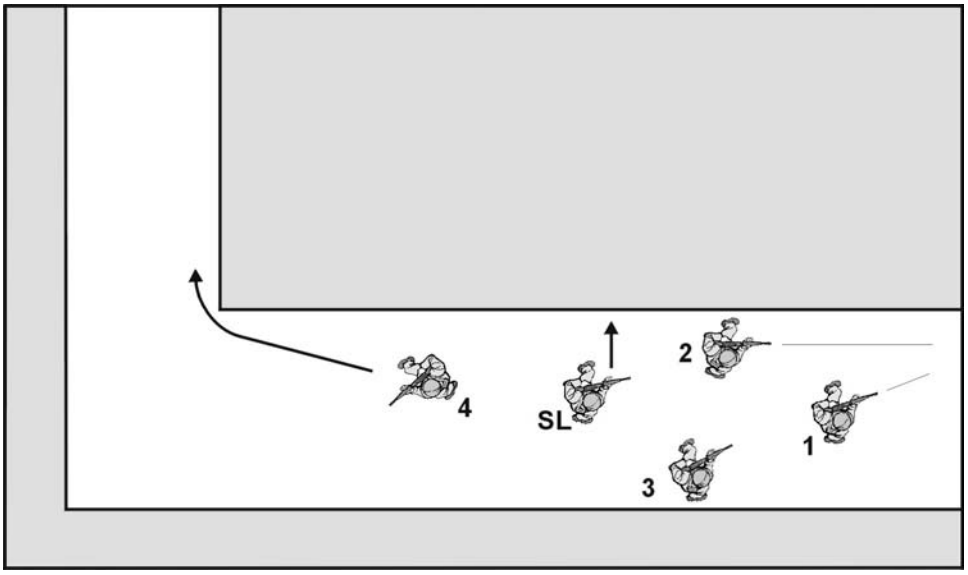

Figure 9-29. Breaking of contact under fire.

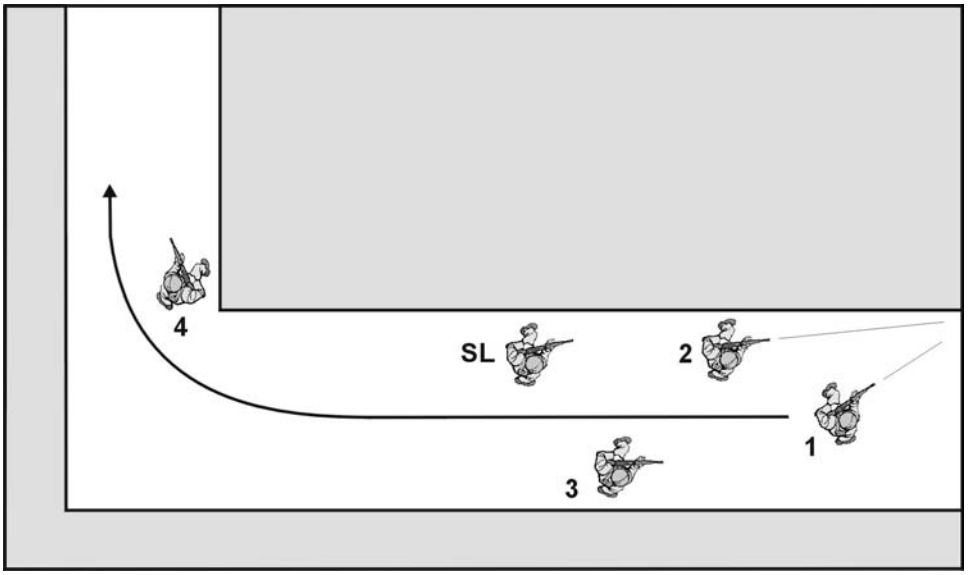

Figure 9-30. Movement of Number One soldier.

(3) Then the Number Four soldier turns around to support the squad's withdrawal. Once the Number Three soldier begins providing suppressive fire, the Number Two soldier begins to withdraw in the same manner as the Number One soldier (Figure 9-31).

(4) As the Number Two soldier passes the squad leader, the squad leader begins to provide suppressive fire; the Number Three soldier prepares to withdraw, as did the Number Two soldier (Figure 9-32).

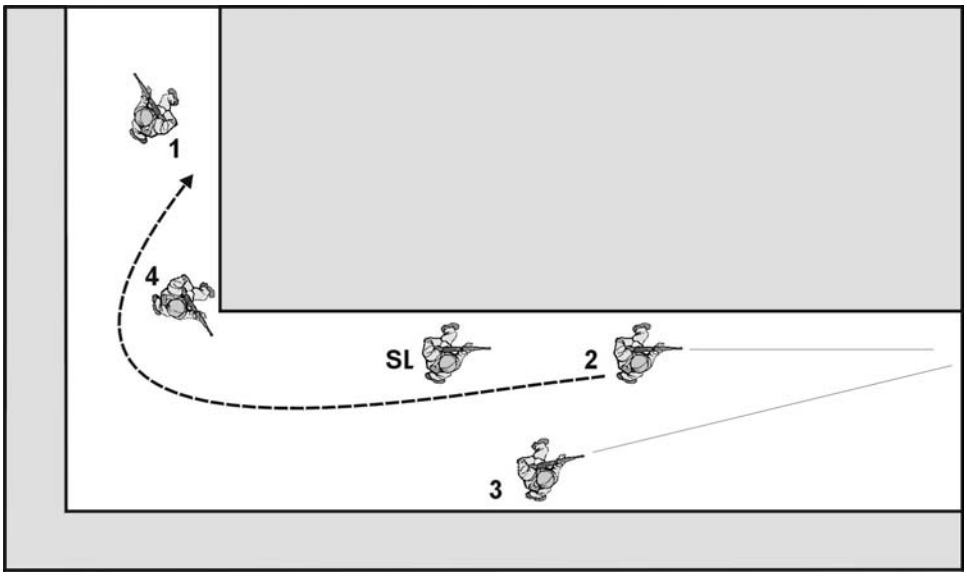

Figure 9-31. Movement of Number Two soldier.

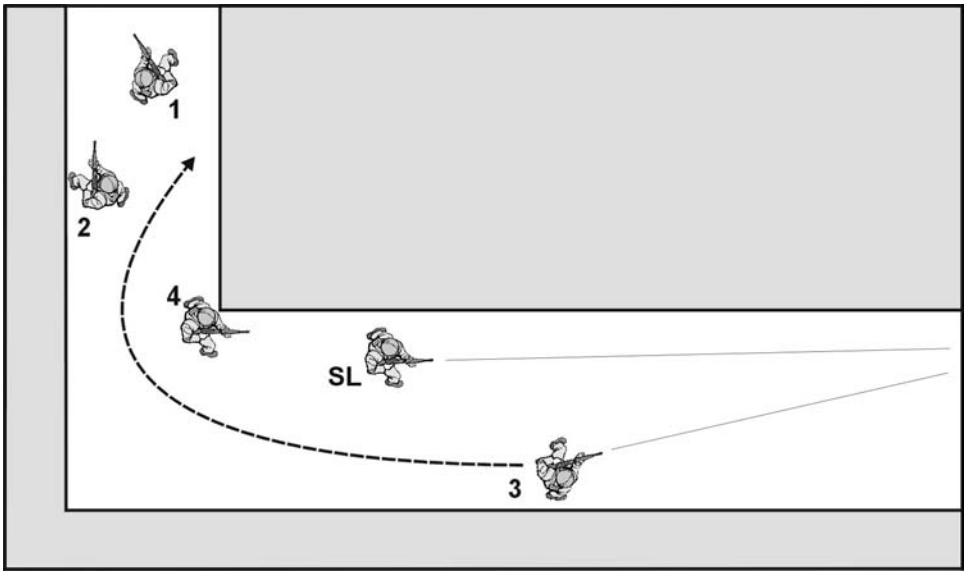

Figure 9-32. Movement of Number Three soldier.

(5) After the Number Three soldier has moved, the squad leader moves into the center of the hallway, allowing the Number Four soldier to engage any threat as the squad leader withdraws (Figure 9-33, page 9-34).

(6) When the squad leader moves out of contact with the enemy, the squad is ready to move (Figure 9-34, page 9-34).

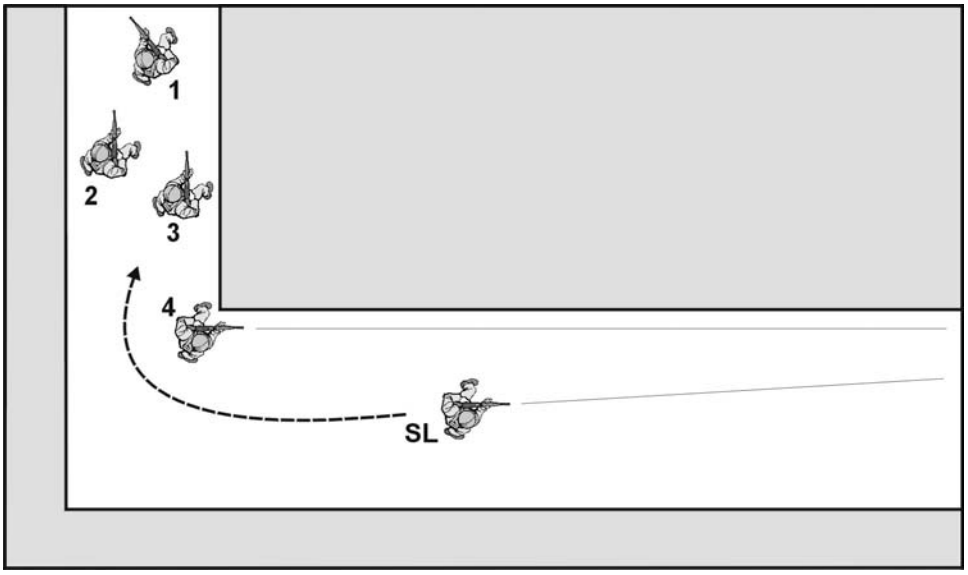

Figure 9-33. Movement of squad leader.

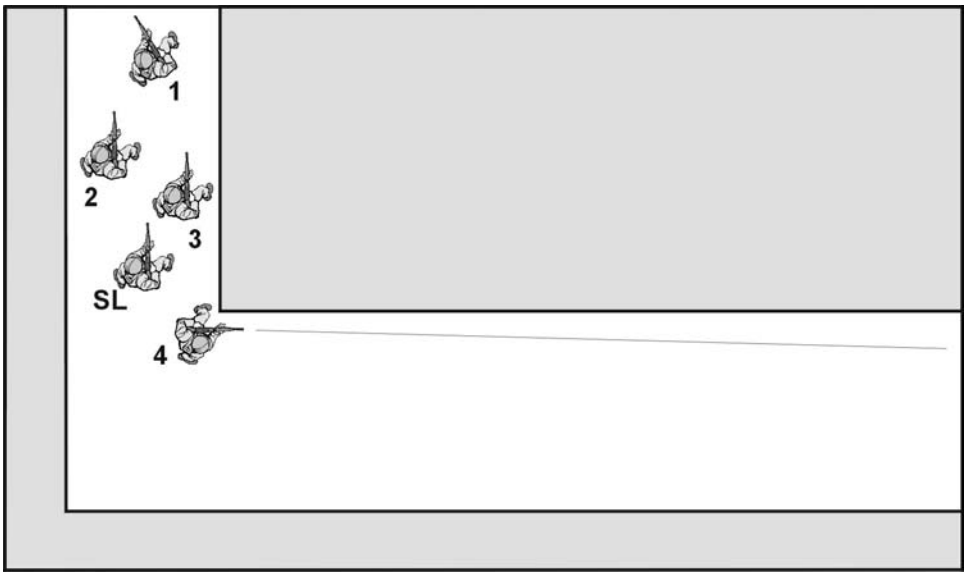

Figure 9-34. Squad positioned to move.

9-13. ESTABLISHMENT OF AN OBJECTIVE RALLY POINT

Establishing an objective rally point (ORP) in urban terrain is extremely difficult. When selecting an ORP, the platoon must consider several factors. The ORP needs cover and concealment, a good buffer between it and the natural lines of drift, defensibility for a short period, and ease of location for returning soldiers. When designating a tentative ORP, the leader conducts a detailed map reconnaissance to identify a suitable location.

He always visually reconnoiters the planned ORP before he occupies it. When selecting a tentative ORP, he considers the following areas:

- Parks or recreation areas with adjacent wood lines.
- Vegetated creeks and streambeds (normally dividing neighborhoods).
- Auto salvage yards or junkyards.
- Warehouses or shipping yards.
- Major highway interchanges.
- Cemeteries.
- Subterranean facilities.

9-14. ESTABLISHMENT OF OBSERVATION POSTS

In urban operations, the reconnaissance platoon can set up and operate observation posts (OPs).

a. **Placement**. They can set up OPs in either of two basic locations.

(1) ***Outside the Area***. An OP on the periphery can serve as a prelude to an offensive operation into the urban area. It could also play a defensive role well forward of the battalion's urban defensive positions. Either way, the platoon uses the same techniques to establish and operate the OP in UO that they would use in open terrain.

(2) ***Inside the Area***. Selecting and occupying an OP inside the confines of the urban area proves very difficult. To do it, the reconnaissance leader must have detailed maps of the city. This includes maps of subterranean facilities, maps with street names, and maps of all key and critical structures. Aerial photographs help in determining size, height and, possibly, structural composition of buildings in the AO. Pictures need to show clearly the AO's boundaries, suspected enemy locations, and routes of movement that the OP must observe.

b. **Considerations**. When selecting tentative OPs, leaders consider the following:

(1) ***Observation***. Roadways and open areas clearly define, but structures limit, the fields of observation. Surrounding rooftops, windows, and doorways become distractions requiring constant observation. Sectors of adjacent OPs should overlap. The effects of smoke from military obscurants and burning buildings can degrade what appeared to be an excellent vantage point. The platoon must provide all-round security, because the enemy can fire from many directions, and because the platoon must counter the enemy's attempts to infiltrate.

(2) ***Cover and Concealment***. Urban terrain readily provides cover and concealment for both maneuvering and static elements. However, the defender has a decisive advantage. A maneuvering attacker normally exposes his presence when moving through the area.

(3) ***Covered and or Concealed Routes to the Observation Post***. The element should move along avenues of approach inside buildings, whenever they can. The enemy is less likely to detect personnel moving inside buildings than those moving through the streets. Reconnaissance elements must remember the enemy will see them on standard avenues of approach. When possible, they should try to use subterranean routes.

(4) ***Specific Positions Inside the Area***. Leaders should position OPs in masonry buildings that offer long-range fields of observation and all-round views. The observer has an advantage because he does not have to move. However, the leader should avoid locating OPs-

(a) In heavy traffic areas. The enemy watches these.

(b) In such obvious positions as church steeples and rooftops. The enemy often watches these and targets them for destruction. Indirect fires can generally penetrate rooftops. Thus, they can cause casualties in the top floors of buildings.

(5) ***Multiple Positions***. Due to the restricted fields of observation in urban terrain, teams should identify and prepare alternate positions within their assigned sectors. A single position might not afford adequate observation without increasing the risk of detection, whereas two carefully placed positions might. Alternate positions must maintain mutual support with adjacent OPs.

9-15. SUBTERRANEAN OPERATIONS

In larger cities, subterranean features include underground garages, underground passages, subway lines, utility tunnels, sewers, and storm drains. Though most sewers allow troop movement, the element should try to avoid using them for that.

a. Subterranean passages provide covered and concealed routes of movement throughout the urban areas. A detailed knowledge of the nature and location of underground facilities is important to both attacker and defender. Maximizing the use of these facilities could prove to be a decisive action in an urban battle. When planning to conduct subterranean operations, reconnaissance element leaders should—

(1) Determine if using subterranean avenues of approach or occupying subterranean areas will help the platoon accomplish its mission.

(2) Analyze the subterranean mission and evaluate the impact of subterranean operations on the soldiers. Before submitting soldiers to subterranean combat, think it through first. Remember that it places extremely high physical and psychological demands on soldiers.

(3) Plan for redundant communications (messengers, wire, radios).

(4) Plan for additional weapons and ammunition that may be required for subterranean operations (shotguns, pistols, distraction devices, early warning, and so forth).

b. Underground passageways provide tight fields of fire. They amplify all sounds as well as the effect of munitions such as grenades. The insides of tunnels provide little or no cover and concealment, except for the darkness itself and any fabricated barriers. A thorough reconnaissance of the subterranean or sewer system must be made first. As opposed to storm systems, sewers contain various types of contamination. Leaders and soldiers should plan carefully before they enter such systems.

c. The tactical values of underground facilities for a reconnaissance element include the following (for further detail concerning subterranean TTP, see FM 90-10-1, Appendix D):

(1) ***Movement***. Subterranean routes enable the reconnaissance element to infiltrate the objective area undetected. Depending upon the size and experience of the threat forces, movement along the subterranean avenue of approach could be unimpeded. However, a large, well-trained opposing force will try to control subterranean facilities.

Once the reconnaissance element reaches the objective area, they must deploy multiple R&S teams aboveground and into buildings to conduct the area reconnaissance.

(2) ***Initial Reconnaissance***. The use of subterranean passages allows the reconnaissance element to conduct an initial infiltration into the urban area virtually undetected. Without prior intelligence of possible enemy positions, reconnaissance elements using subterranean routes can identify critical locations, structures, movement routes, and enemy positions. Curbside storm drains make excellent observation ports when conducting a route or zone reconnaissance, or when tasked to observe an essential intersection or roadway.

DANGER

- **LARGE AMOUNTS OF ANY TYPE OF GAS (INCLUDING THAT PRODUCED BY SMOKE GRENADES) CAN DISPLACE THE OXYGEN IN AN ENCLOSED SPACE. THIS RENDERS PROTECTIVE MASKS USELESS AND ENDANGERS THE LIVES OF ANYONE OPERATING IN THIS TYPE OF ENVIRONMENT. RESPIRATORS WITH THEIR OWN OXYGEN OFFER THE ONLY ACCEPTABLE SOLUTION FOR OPERATING IN THIS TYPE OF ENVIRONMENT.**
- **SMOKE GRENADES ALSO DISPLACE OXYGEN IN CONFINED SPACES.**
- **THE PRESENCE OF RODENTS AND OTHER PESTS IN A SUBTERRANEAN ENVIRONMENT INDICATE THAT SUFFICIENT OXYGEN IS PRESENT FOR SURVIVAL.**
- **FLAMMABLE GASES CAN CAUSE A MAJOR EXPLOSION WITH THE SLIGHTEST SPARK. FIRING A WEAPON COULD DO THE SAME.**
- **SOME GASSES EMIT NO DETECTIBLE ODOR. THE ONLY SURE WAY TO PROTECT SOLDIERS FROM HARMFUL GASSES IS TO VENTILATE THE PASSAGEWAY BY FORCING FRESH AIR INTO THE SITE. REMOVING A MANHOLE COVER DOES NOT ADEQUATELY VENTILATE A SUBTERRANEAN PASSAGEWAY.**

9-16. RECONNAISSANCE PLATOON AS A COMBAT MULTIPLIER

Urban operations often start with a reconnaissance mission begun outside the urban area. In some cases, when the operation starts, the enemy has not set up yet inside the city. Friendly forces could find themselves tasked to retain an urban area or to deny it to the

enemy. To accomplish this, reconnaissance efforts focus on locating enemy positions around the urban area and on monitoring them to detect any threat preparations to seize or occupy key urban terrain. In other cases, the enemy may not be conducting urban operations because of military limitations or political restrictions. The friendly commander (as well as the reconnaissance platoon leader) must realize that this situation could change unexpectedly once restrictions lift or when the enemy realizes he has much to gain from urban operations. Leaders can have the reconnaissance platoon monitor the enemy's activities while the task force prepares for a rapid transition to urban operations. Whatever information he obtains helps the commander interdict before the enemy can seize or occupy key urban terrain. Once deployed within the city, the reconnaissance platoon seeks to pinpoint enemy defenses as well as undefended or weakly held areas where friendly forces could bypass or isolate the threat. This paragraph focuses on some of the reconnaissance platoon's operational considerations in urban operations.

a. **Disrupt Enemy Defenses**. The reconnaissance platoon can exploit tactical surprise and preempt effective defensive preparations within the city. Effective employment of reconnaissance elements, using appropriate techniques, significantly enhances the commander's ability to achieve surprise when his unit is conducting offensive urban operations. At the same time, while using intelligence collection and fire support assets to set necessary preconditions within the urban environment, he must avoid prematurely disclosing the presence of the reconnaissance platoon. The commander should also be aware that surprise is much more difficult for the defender to achieve in this situation; it is often possible only when the attacker suffers major failings in collection, analysis, and dissemination of intelligence.

(1) ***Exploit Weaknesses***. The reconnaissance platoon can also assist the commander in concentrating sufficient combat power at decisive points within the city. Historical experience indicates that, when an attacker wins despite inferior manpower and firepower, the defender has most likely violated one or more principles of war. Reconnaissance elements in support of an urban attack should always be alert to the possibility that the defender has not positioned his forces correctly or exhibits some other weaknesses or shortcomings.

(2) ***Neutralize Key Facilities***. The commander may be able to capitalize on such a weakness or shortcoming, or he may be able to create one. As an example, intelligence sources, including the reconnaissance platoon, have determined that the defending force relies on the local telephone exchange and military FM communications for command and control. The commander probes this weakness by directing his reconnaissance to identify key communications nodes. Once identified, the commander can disrupt enemy C2 by destroying the telephone system and jamming FM communications. He can also eliminate other types of commercial broadcasting systems, such as TV and radio, to deny the enemy a backup means of communications. The friendly commander then exploits this situation by massing combat power against isolated threat forces to seize key areas.

b. **Control the Employment of Fires**. The reconnaissance platoon can also play an important role in employing fires during urban operations. Reconnaissance elements call for and adjust indirect fires, assist in controlling close-air support, direct attack helicopter fires, and can discriminate between threat forces and civilians. They can accomplish this by effectively positioning on the battlefield and effectively using their acquisition capabilities.

(1) Traditionally, indirect artillery and mortar fire has been a significant factor in successful urban operations. Fire support has proved to be the primary means by which the commander can interdict enemy supply operations, as well as prevent the reinforcement and evacuation of enemy troops. In such instances, the commander plans and places indirect fires on routes leading to and from the city rather than in the urban area itself.

(a) During offensive operations, to prevent fratricide and other consequences of carelessly placed fires, the commander must employ fires precisely. Indiscriminate artillery and heavy mortar fires can degrade the ability of friendly forces to maneuver while simultaneously providing the enemy with an unintended advantage such as creating rubble that may be used for barrier materials or additional cover and concealment.

(b) Inaccurately placing fires can also cause significant collateral damage. In addition to causing fratricide and civilian casualties, friendly fires can undermine the city's supporting infrastructure by damaging water, gas, and electric service lines. It could also create natural disasters such as inadvertently releasing toxic industrial materials (TIM) from commercial chemical facilities.

(c) Indirect mortar fires are valuable during urban operations. Their high rate of fire, steep angle of fall, and short minimum range allow reconnaissance elements to mass considerable firepower on specific enemy positions, even in the tight confines of the urban battlefield. Using multioption fuses and various types of rounds increases the versatility of the indirect-fire plan. Mortars can obscure, neutralize, suppress, and illuminate the commander's battlespace.

(2) In support of his indirect-fire plan, the commander uses the reconnaissance platoon in various ways. Among others, he uses them to accurately direct fires onto enemy positions. He relies on them to provide "ground truth" information, which can help him prevent the problems associated with indiscriminate or inaccurate fires. These problems could of course include fratricide, civilian casualties, and serious collateral damage. Reconnaissance elements prove especially valuable in preventing fratricide by helping to ensure that the commander knows at all times the accurate locations of friendly and enemy forces in the urban area.

c. **Isolate the Enemy Force**. No single factor of urban combat has proven more important to success than isolation of the urban area. The reconnaissance platoon provides the commander with information that will help him determine how to isolate the enemy. Reconnaissance platoon operations also focus on identifying when and where the enemy plans to defend a city. The commander uses reconnaissance information to exploit the urban battlespace and achieve a significant tactical advantage. He can then isolate the enemy by massing combat power at decisive points, and by passing or conducting economy-of-force operations in nondecisive areas.

d. **Interact with Civilians**. Urban operations have an additional factor within the planning considerations of mission, enemy, terrain (and weather), troops, time available, and civilian considerations (METT-TC considerations). The reconnaissance platoon assists the commander in leveraging the local civil considerations. The commander must remember his responsibilities to civilians at all times. In this age of modern media, this is an extremely important factor. The reconnaissance platoon members have several responsibilities when dealing with the civilian population. They conduct reconnaissance to limit the collateral damage resulting from tactical operations. They can locate

noncombatants who have sought refuge in the urban area and identify facilities that sustain them. Reconnaissance elements can also determine whether civilians in an urban area pose a threat to friendly forces.

9-17. COMMAND, CONTROL, AND COMMUNICATIONS

Combat power is difficult to mass during urban operations because fighting is isolated. Urban operations further challenge command and control since units can so easily lose track of each other's locations. Such conditions make it necessary to decentralize the fight down to the smallest unit. These small units--reconnaissance elements and infantry squads--must communicate continuously and effectively if they are to survive and win on the urban battlefield.

a. **Direction-of-Assault Technique of Direct-Fire Planning and Control**. Having a standard method of naming and numbering structures within the objective area is critical to the reconnaissance mission. The reconnaissance elements must clearly specify the location of enemy positions, fortifications, and possible breach and entry points. This technique of fire control, when properly disseminated to all the combat support units, is an effective means of calling for and directing close-air, attack aviation, direct-fire artillery, and armored vehicle fire support. In this technique, the platoon leader assigns building numbers in a consistent pattern, relative to the planned direction of assault (Figure 9-35).

(1) The figure shows the buildings numbered consecutively in a counterclockwise manner.

(a) The sides of the buildings have color codes that are consistent throughout the objective area.

- WHITE indicates the direction-of-assault side.
- GREEN indicates the right side.
- BLACK indicates the rear side.
- RED indicates the left side.
- BLUE indicates the roof.

(b) Figure 9-35 also shows an odd-shaped building. The "four-sided" concept reduces confusion.

(c) The platoon leader can designate WHITE 1, WHITE 2, WHITE 3, and so on, from left to right, to show which wall to engage.

(2) The platoon leader labels building apertures consecutively, using rows and columns. He designates all apertures relative to the direction of assault. In the example, the lower left-hand window on the direction-of-assault side of OBJ 4 is labeled "OBJ 4, WHITE, window A1." (See Appendix G, FM 34-130 for more information about building shapes and structural labeling.)

(3) The reconnaissance element can use this same technique when producing area maps and objective sketches for the battalion. A detailed map consisting of streets, alleys, roadways, and buildings, each one individually labeled, along with additional structural sketches would greatly enhance missions planning.

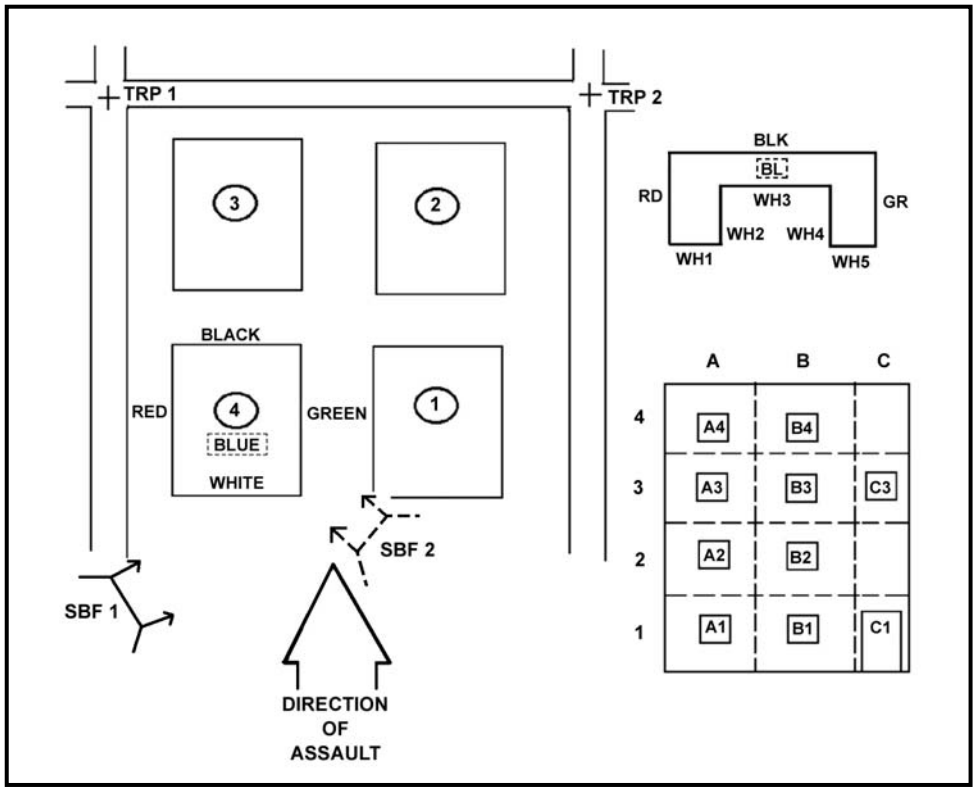

Figure 9-35. Direction-of-assault technique of direct-fire planning and control.

b. **Visual Signals**. Visual signals are the most effective means of communications within small units during combat operations. Targets can be identified with tracer fire, grenade launcher rounds, smoke grenades, VS-17 panels, or arm-and-hand signals. Visual signals can trigger specific actions. They can indicate when soldiers should initiate, lift, or shift fires; move forward to the next position; or pop smoke.

c. **FM Radio and Wire**. The unit leaders can use FM radios and or landline telephones to communicate with superiors, subordinates, and adjacent units. Structural interference, as well as high-tension and telephone wires, severely degrades FM radio communications. When operating from static positions, leaders can use landlines if interference disrupts FM communications.

Section III. STABILITY AND SUPPORT

As part of the battalion task force, the light infantry reconnaissance platoon might have to perform tasks in stability and support operations that require them to modify traditional reconnaissance missions. In this situation, the platoon must but be prepared to conduct offensive or defensive reconnaissance or security missions. The platoon may also be required to conduct stability operations or support operations following the successful completion of a combat mission. A well-trained unit can quickly and effectively switch from performing a war-fighting mission to conducting a stability and support operation,

or vice versa. During stability or support operations, the platoon must stay prepared to conduct a wide range of combat or noncombat tasks. Essentially, the unit accomplishes these tasks through the execution of tactical tasks such as security patrols, roadblocks, check points, convoy escort, and food distribution.

9-18. STABILITY OPERATIONS

Stability operations apply military power to influence the political environment, facilitate diplomacy, and interrupt specified illegal activities. They include both developmental and coercive actions. Developmental actions enhance a government's willingness and ability to care for its people. Coercive actions apply carefully prescribed limited force and the threat of force to achieve objectives.

a. Units conduct stability actions to accomplish one or more of the following:
   - Deny or hinder aggression.
   - Reassure allies, friendly governments, and agencies.
   - Support a weak or failing government.
   - Stabilize a restless population.
   - Maintain and restore order.
   - Ensure adherence to agreements and policies.

b. Reconnaissance platoons normally employ TTP in UO similar to the TTP they use for combat R&S missions. These TTP help them accomplish the actions just described. The ROE comprise the main distinguishing characteristic between UO and combat R&S missions. (Table 9-1 shows examples of tactical tasks in UO.)

TYPE OF OPERATION	TACTICAL TASKS
Peace	• Move tactically
	• Conduct a route reconnaissance
	• Conduct an area reconnaissance.
	• Conduct subterranean reconnaissance operations.
	• Establish static security positions in an urban area.
	• Perform surveillance from an OP.
	• Maintain communications in an urban area.
	• Conduct resupply operations.
	• Treat and evacuate casualties.
Antiterrorism	• Move tactically in urban area.
	• Conduct an area reconnaissance.
	• Conduct a route reconnaissance.
	• Establish a static security position in an urban area.
	• Perform surveillance from an OP.
	• Maintain communications in an urban area.

Table 9-1. Examples of tactical tasks for stability operations.

TYPE OF OPERATION	TACTICAL TASKS
Noncombatant Extraction	• Infiltrate an urban area.
	• Move tactically in urban area.
	• Conduct an area reconnaissance.
	• Conduct a route reconnaissance.
	• Establish a static security position in an urban area.
	• Perform surveillance from an OP.
	• Maintain communications in an urban area.
Arms Control	• Conduct an area reconnaissance.
	• Conduct a route reconnaissance.
	• Establish a static security position in an urban area.
	• Perform surveillance from an OP.
	• Assist and monitor inspection of arms.
	• Maintain communications in an urban area.
Support to Counterinsurgencies	• Conduct an area reconnaissance.
	• Conduct a route reconnaissance.
	• Establish a static security position in an urban area.
	• Perform surveillance from an OP.
	• Maintain communications in an urban area.
Show Of Force	• Move tactically.
	• Demonstrate capabilities.
	• Maintain communications in an urban area.
	• Conduct training exercises.
Civil Disturbance	• Maintain communications in an urban area.
	• Conduct patrols.
	• Handle noncombatants and detained personnel.
	• Employ quick reaction force.

Table 9-1. Examples of tactical tasks for stability operations (continued).

9-19. SUPPORT OPERATIONS

The overarching purpose of support operations is to meet the immediate needs of designated groups for a limited time, until civil authorities can accomplish these tasks without Army assistance. Battalions conduct support operations to save or protect lives, reduce suffering, recover essential infrastructure, improve quality of life, and restore situations to normal. Due to the nature of humanitarian and environmental assistance, the reconnaissance platoon can expect to interact with other units and agencies. This can include engineers, MPs, and nongovernmental organizations (NGOs). Support actions rely on a partnership with other government and nongovernmental agencies. The platoon must form liaisons with these agencies and with local governments. However, regardless of the positive relationships built, force protection remains top priority. (Table 9-2, page 9-44, shows typical tasks associated with each type of support operation.)

TYPE OF OPERATION	TASKS
Humanitarian Assistance	• Provide labor for relief efforts.
	• Conduct search and rescue actions.
	• Conduct security patrols.
Environmental Assistance	• Provide labor for relief efforts.
	• Establish communications.
	• Distribute water.
	• Remove debris.
	• Conduct security patrols.

Table 9-2. Examples of tasks for support operations.